INFLUENCE OF TEACHER PREPAREDNESS ON IMPLEMENTATION OF COMPETENCY BASED CURRICULUM IN PUBLIC PRIMARY SCHOOLS IN KIAMBU SUB-COUNTY, KIAMBU COUNTY, KENYA

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DECLARATION

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

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I dedicate this work to my parents, Samuel Njagi and Severina Njagi, my siblings Ken ,Millicent and more sincerely Kevin Muchoki Njagi who has been a great inspiration throughout my study.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBC Competency Based Curriculum

CSOs Curriculum Support Officers

GDP Gross Domestic Product

IBE International Bureau of Education

ICT Information Communication Technology

KICD Kenya Institute of Curriculum Development

MOE Ministry of Education (MoE)

NACOSTI National Council for Science and Technology

PCIs Pertinent and Contemporary Issues (PCIs),

SDGs Sustainable Development Goals (SDGs)

SPSS Statistical Package for Social Scientists

TSC Teachers Service Commission

UNESCO United Nations Educational, Scientific and Cultural Organization

USA United States of America

ABSTRACT

The purpose of this study was to investigate the influence of teacher preparedness on implementation of Competency Based Curriculum in public primary schools in Kiambu Sub-County, Kenya. Four objectives guided the study; to determine influence of instructional methodologies in implementation of competency based curriculum at public primary schools; to examine influence of use of instructional materials in implementation of competency based curriculum at public primary schools ; to assess influence of head teachers' mode of assessment in implementation of competency based curriculum at public primary schools ;to assess digital literacy skills of teachers' in implementation of competency based curriculum in public primary schools in Kiambu Sub County, Kenya. The study was guided by Vygotsky's constructivism theory. The study adopted descriptive research design. The study targeted Head teachers, preprimary and grade 1 to 3 teachers in 21 public primary schools, as well as curriculum support officers in Kiambu Sub-County. The sample size constituted of 11 head teachers, 2 Curriculum Support Officer as well as 83 teachers. Data collection tools were questionnaires, observation check lists and interview schedules. Instrument validity was assured through seeking expert opinion of university supervisors. Instrument reliability was determined through test-retest method. Descriptive statistics was used for analysis of quantitative and qualitative data which included mean and standard deviation, results presented in frequencies and percentages. Statistical Package for Social Sciences version 23.0 was used for data analysis. Key findings of the study were; majority 52(71%) pre-primary teachers who indicated level of agreement were of the perception that reporting to learners after formative assessment. This revealed that teachers needed in service training on the aspect of assessment as far as the competency based curriculum was concerned. The study established that 51 (70 per cent) of the teachers agreed mathematics instructional materials were available and adequate, 44(60%) of the teachers agreed English instructional materials were available and adequate and 40(55%) of the teachers agreed Kiswahili instructional materials were available and adequate. Majority47 (64%) of teachers agreed that they have been trained to infuse ICT with competency based curriculum. Key conclusions of the study were; the study concluded that teachers' incompetence in the delivery of using the competency based approach. The study concludes that during the roll out of competency-based curriculum teachers have not been relevant as well as adequate instructional materials enabling leaners in-depth understanding.; Key recommendations were; Ministry of Education should create a workable training framework that prepare teachers to successfully implement competency based curriculum; Kenya Institute of Curriculum Development should enable involvement and participation of teachers in the curriculum change process to enable effective implementation of competency-based curriculum in Kiambu Sub-County.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Competency based curriculum (CBC) currently appears to gaining ground in basic, technical and high education across the world. The driving force is the purpose of connecting the education initiatives with labour markets and the dynamic societal demands (Mulder, 2018).A distinctive factor of the competency based curriculum is that it is designed to be specific and applicable to every student's situation, entry behavior and learning style. Critical to the competency based curriculum is an evaluation practice which precisely and dependably identifies the student's capability to accomplish a task (Kasten, 2018). By focusing on an individual in a group competency based curriculum stands out to spark intrinsic motivation characterized by student's possession of an internal drive to engage in their education as they come into contact of hands-on experience with learning by engaging their senses of smell, touch sight and hearing with learning. This is referred to as pragmatic learning (Zeiser, 2018).

Based on Kenya Institute of Curriculum Development, KICD (2017), competency can be conceptualized as performing certain duties based on application of one's capability, it implies that competency based curriculum pays much attention to learning process and holistic education while focusing on the institution and systems at a reduced effort. It involves the teachers enhancing students to create individual know-how as well as ability by enabling them to handle practicals and realities. Parents also become active stakeholders in the learning process by engaging them by reinforcing and allowing for collaborative approach in every angle of the education process. Additionally, the competency based curriculum sets sight on unification of

Pertinent and Contemporary Issues (PCIs) as well as resource learning which links the classwork to practical and real scenarios in the world (KICD, 2017)

Across the globe, competency based curriculum has been adopted to align education to Sustainable Development Goals (SDGs) and the dynamic needs of a growing global economy. In the United States of America (USA), considerable strides have been made since 1970s to invest in competency based curriculum in order to make learning more personalized and as individualized as possible (Sturgis, 2018).This has been done to deliberately structure the USA education system leaning towards a program which embraces resilience, empowers learners to grow and develop intellectually, regardless of location or time in the education process (USA Department of Education, 2018). In Malaysia, the shift to competency based education is underway. The Malaysian education programme is being designed to help learners study what they need to help them tell their unique story. Everyone involved in education shall have opportunities to help make transition from one level of mastery realistic and goal focuses (Ark, 2018).

In the United Kingdom, Competency Based Curriculum has gained a stable platform with emphasis being what you can do with what you know? The goal of education is to ensure that the learner applies what is learnt in school in real life content to solve a problem. Knowledge in the UK is only relevant if it contributes to solving societal needs and impacts to the country's Gross Domestic Product in the long run (Katrina, 2018). Moreover, Swartz (2017) credits the Competency Based Curriculum by emphasizing that it compels people to think critically about what it is they want to know to do to believe and its application in real life.

Rwanda has done quite well in implementing the Competency Based Curriculum (Hammond, 2012). Deliberate efforts to shift from knowledge acquisition to knowledge and skills application have been the key focus, in a bid to make Rwanda's education programme relevant globally. In order to actualize education reforms in Kenya, the Competency Based Education Framework, a blueprint of the education sector in Kenya has been designed. According to Gervais (2016) the competency based model is a programme which reinforces the role of students than expectation on mastery of knowledge.

Administration of assessment rubrics should be emphasized which are tasks tailored towards individual learner's proficiency to practice what they have acquired to practical situations. (Striggins, 2008). The paradigm shift from mastery towards the current CBC program implies that the role of the teacher is slowly changing from giving notes to being a facilitator the learner taking the centre stage (Kabita& Li, 2017). In addition, many countries across the world are emphasizing on the introduction of technological sciences into school learning process. Stakeholders are ensuring ICT is integrated at all levels of learning and teaching. Teachers are also being trained in order to develop competencies and skills to use and apply in digital learning. Lim,Chai and Churchill (2011) assert that teachers are expected to create a technology based environment to facilitate teaching and learning. Kenya has a policy that all schools should integrate ICT in learning in order to realize vision 2030.

Hwande & Mpofu (2017) an analysis covering readiness of primary schools on undertaking new curriculum in grade three level in Zimbabwe, revealed that teaching staff continuous training offered was inadequate, including some of the trainers not being conversant with the new program, as well as inadequate reading resources and no internet connectivity even as the new establishment makes internet essential to teaching staff.

Use of instructional materials should allow for ease of interpretation of the curriculum design by way of scope and sequence charts which direct course books on the relevant and age appropriate content. Instructional materials should be designed such that they allow learning process as opposed to the traditional approach where the learner was a passive recipient of knowledge. It is against common best practice for outdated instructional materials to be adapted alongside the new curriculum they do not match (Mundia, 2017). Furthermore, assessment of learner's level of mastery of competencies is important in the CBC. With the change of the current curriculum to a competency based curriculum, it is important to align assessment to outgoing emphasis to level of achievement of competencies outcomes (Conner, 2009).

Tanzania in the year 2005 established competency-based curriculum program in order to tackle inefficiencies in student development and as a result lower standards(Ogondieck, 2005).Years later after this new development a review conducted by Tilya and Mafumiko (2010) analyzing the relationship between CBC and traditions of teaching within Tanzania revealed that curriculum stakeholders, textbook producers and the teaching staff poorly handled integration to the new order(CBC) since they didn't understand it well.

Educational resources are critical in supporting teaching and learning. They appeal to the natural body senses and make abstract concepts concrete and aid learning. The more senses the resources appeal to, the better the learning. Resources help the teacher to facilitate learning by engaging learners, raising their curiosity and enthusiasm. Modern technologies enrich educational resources. There is need to prepare teachers as well as build their research capacity through the strengthening of distance learning programmes to ensure access of the latest technologies (Annan, 2005) which become handy in use of technology-supported educational resources.

There is increased awareness of varieties of school-based modes of teacher education through the use of Information Communication Technologies and the use of open educational resources (Moon, 2007). These could be used to enhance teacher training structures to offer articulation between theory and practice and ensure teachers are effective, reflective practitioners. In addition, high-quality Open Educational Resources (OER) are accessible and enhance standards of learning (Kanwar, Kodhandaran & Umar, 2010). Teachers could be more innovative and maneuver technologies innovatively for use in class for increased learner achievement in specific classroom contexts.

Gelonka (2014) reviewed technology and found good evidence to support the fact that technology could make a difference in developing the effective skills whichspice up life which is the essence of education. There are a variety of technologies that could spice up teaching and learning such as videos, online forums, online video, case study discussions, smartcard, texting, email, online communities of learning offered by the Teacher Education in Sub Saharan Africa (TESSA) OERs which is a commendable opportunity for all teachers to explore.

The introduction of competency-based curriculum in Kenya has raised a question on the capacity and teachers' preparedness to implement the CBC. Execution of the CBC program in its first phase is facing quite a number of challenges. According to Kaviti (2018) the competency-based curriculum was hastily crafted and rushed through a pilot that was done in 2017. A study carried out by Kaviti (2018) on the new curriculum of education in Kenya shows that the pilot system of the new curriculum took an average of ten weeks, whereby less than 2000 teachers of the total 160000 teachers imparting basic education in Kenya were trained.

In Kenya, a basic Education Curriculum Framework as a policy was designed so as to realize new amendments to the curriculum. (Jeng'ere, 2016). Ji (2017) explains that the role of a competency based curriculum is to reinforce expectations on the learner instead of concentrating on what the learner is expected to know. It is aimed at helping learners acquire competencies in order to produce solutions to problems in real life contexts. Jadama (2014) posits that teaching staff knowledge and mastery of the topic relates to how effective they can pass this curriculum content on to the students, since also explanations might be needed by the students over time.

Makuna (2013) observes that in the past Kenya has made many curriculum changes that have either not been implemented or taken too long to be implemented. Researchers have given many reasons which include teachers' resistance to implement the new curriculum due to incompetence of teachers, lack of training prior to introduction of the new curriculum and inadequate ICT skills (Bingimlas, 2009; Mumtaz, 2000 & Balanskat, 2006). Kinuthia (2009) posited that a huge number of teaching labour in Kenya remains computer illiterate with a only a few being computer literate.

Waweru (2018) carried out a review analyzing the impact of teacher preparedness towards execution of the Competency-Based program in primary schools. Outcome revealed that the teaching staff being not well enhanced towards introducing the CBC program. 98.8 percent of the teaching staff stated not being ready to execute the CBC program specifically to new subjects as another 95 percent stated that lesson preparation schemes for every lessons was not possible due to the time taken developing a single lesson being much. It also found that quite a number of the teaching staff(50%) required assistance towards integrating innovation, creating evaluation guidelines, which are roles meant for ascertaining student' proficiency in conducting certain roles.

Planning for teaching is a vital component for successful delivery of quality education. It is the art of preparing a step by step procedure of what to teach and how to teach it in order to achieve a pre determinable outcome (Lawrence, 2016).Stakeholders in the education sector hold the view that although Kenya has adopted a paradigm shift from teaching to learning, due consideration has not been done especially teacher preparation with special focus to mode of knowledge delivery (Lawrence, 2016).

An external report by IBE-UNESCO, (2017) revealed that teachers of Kiambu County, subject to a case study on the new curriculum raised alarm over the too much time lesson planning was taking which compromised time for instruction and that it was difficult for teachers to construct assessment rubrics. This research work, therefore, is out to investigate impact of teacher preparedness towards the implementation of the CBC program in Kiambu Sub County, Kiambu County, Kenya.

1.2 Statement of the Problem

Preparedness by the teachers is vital when enrolling a new curriculum since the teachers are at the heart of its successful implementation. In Kenya the plan to transition from the 8-4-4 curriculum into Competency Based Curriculum is bound to experience challenges including lack of adequate measures to prepare the teachers for the curriculum change. The success of Competency Based Curriculum to impact the learners is to a large extent dependent on adequate equipping of the teachers. Ideally, a new curriculum should be introduced to teachers so that they are able to critic its content and add their input. Besides, the teachers ought to receive quality and adequate training on how to deliver lessons on the new curriculum. Therefore, teachers in Kenya ought to have received adequate training on the new curriculum so that they could be in a

vantage position to prepare and deliver quality lessons to pupils. Besides, supporting content materials were not prepared on time and those that have been prepared do not meet the needs and demands of the Competency Based Curriculum (International Bureau of Education-UNESCO, 2017).The research therefore sort to establish the level of teachers' preparedness in the implementation of competency based curriculum in public primary schools in Kiambu Sub County.

1.3 Purpose of the Study

The purpose of this study was to investigate the influence of teacher preparedness on implementation of competency based curriculum in public primary schools in Kiambu Sub-County, Kiambu County, Kenya.

1.4 Objectives of the Study

The study was guided by the following objectives:

i. To determine influence of instructional methodologies in implementation of competency based curriculum at public primary schools, in Kiambu Sub County, Kenya.

ii. To examine influence of use of instructional materials in implementation of competency based curriculum at public primary schools in Kiambu Sub County, Kenya.

iii. To assess influence of head teachers' mode of assessment in implementation of competency based curriculum at public primary schools in Kiambu Sub County, Kenya.

iv. To assess digital literacy skills of teachers' in implementation of competency based curriculum in public primary schools in Kiambu Sub County, Kenya.

1.5 Research Questions

The following questions guided the study:

i. In what ways does the teachers' use of instructional methodologies influence implementation of Competency Based Curriculum at public primary schools in Kiambu Sub County, Kenya?

ii. What is the influence of use of instructional materials in the implementation of Competency Based Curriculum at public primary schools in Kiambu Sub County, Kenya?

iii. How does the head teachers' mode of assessment influence teachers' preparedness in implementation of Competency Based Curriculum at public primary schools in Kiambu Sub County, Kenya?

iv. What is the influence of teachers' digital literacy skills and their influence of the teachers in implementation of Competency Based Curriculum at public primary schools in Kiambu Sub County, Kenya?

1.6 Significance of the study

Findings of this research offer great benefit towards practicing teachers as the Ministry of Education (MoE) may reconsider doing proper training of teachers on the paradigm shift to the new curriculum in addition to supplying relevant and adequate instructional materials. Additionally, field officers, especially Curriculum Support Officers (CSOs), would find the findings of this research may assist them in designing areas of focus when giving formative feedback to teachers. Moreover, Researchers, students and other scholars may also get

knowledge to supplement existing research. Further the ministry of education (MOE) may also find it necessary to restructure Primary Teacher Education (PTE) in line with the paradigm shift so as to give pre service trainings to teachers on the paradigm shift and therefore avoid duplication.

1.7 Limitations of the Study

This involve elements of the analysis which may impact this research although the principal investigator has no influence over them (Mugenda, A. & Mugenda, O., 2007). This research was conducted in government pre-schools within Kiambu Sub-County and it limited the generalization of the findings to other Sub-Counties. The respondents might have withheld some information for fear of exposing the situation of their readiness towards execution of the CBC program, the investigator mitigated it by disclosing to the interviewee the exact purpose of thia analysis and that their identities will not be disclosed.

1.8 Delimitations of the Study

This study was delimited to public primary schools of Kiambu Sub-County. Privately managed schools are not fully supported by the government in terms of infrastructure and were therefore not be of interest in the study. Besides, respondents of the study included preprimary one to grade three teachers since the teachers play a key role in the execution of this new program. School heads who are school managers and curriculum support officers also participated in the study.

1.9 Assumptions of the Study

This research was founded on these premises

i. Every Pre-primary One and Two; and Grade 1- 3 teachers in public primary schools adhere to the CBC approach to education.

ii. targeted respondents will answer honest data and that they will answer research questions truthfully and without bias.

iii. Respondents will be willing to offer sensitive information

1.10 Definition of key words

The section covers contextual definitions of key words

Assessment rubric implies to a tool designed by teaching staff designed to measure level of achievement of a task target

Competency based curriculum denotes an education process which champions for use of competencies in real life situations

Core competencies refers to descriptions that indicate in specific terms what the teacher, now called a facilitator, intends to achieve at the end of a learning task.

Implementation refers to actualizing the objectives of the competence based curriculum through actual instruction at school.

Instructional materials refers to materials used by a facilitator to make the subject matter as concrete as possible to enhance retention and arouse curiosity in learners.

Mode of assessment this refers to the methods through which curriculum officers will use to help them ascertain if curriculum objectives are being achieved. They include: oral tests, continuous assessments, and student practices.

Teacher preparedness denotes a singular and collaborative knowledge, capabilities, views and the proficiency of teaching staff to aid in the execution of the CBC in pre-schools.

1.11 Organization of the Study

Research work has been categorized whereby chapter one contains the background to the research, problem statement, research purpose, objectives of this research, study questions, and importance of this research, limitations and delimitations of this research, basic assumptions of

this research and definitions of key words. Besides, the second chapter entails perusal on relevant related material published earlier on the topic under analysis being sub divided into instructional methodologies, use of instructional materials, teachers' mode of assessment and digital literacy skills. It shall also contain hypothetical and imaginary frameworks on which the research relies.

The third chapter of the study shall comprise of methodologies on research (background, research design, the target population, sample population as well as sampling procedures, study tools, their validity, data collection, procedures, analysis technique and ethical issues governing research. Additionally, Chapter four contains data presentation, interpretation and discussion as chapter five sums it up with a brief summary, conclusion and recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter discusses various relevant literatures on teacher preparedness and implementation of competency based curriculum. The review is organized as per the objectives of the study under the following sub headings: An overview of competency based curriculum, teachers' instructional methodologies and implementation of competency based curriculum, use of instructional materials and implementation of competency based curriculum, teachers mode of assessment and implementation of competency based curriculum, teachers' digital literacy and implementation of competency based curriculum, summary of the review of related literature, theoretical and conceptual framework.

2.2 Implementation of Competency Based Curriculum

Deliberate initiative to integrate competencies often concentrate on nurturing skills that cut across all sectors or competency to communicate, collaborate, reason rationally and to look at problems critically, (Sullivan & Bruce, 2014). Competence Based Inquiry is a way of creating a learning framework designed to meet individual learners pre-determined set of abilities. Given the fact that learners have diverse abilities, it is vital for them to comprehend and actualize that competence based learning requires that the activities are hands on and not learning just by observation (Jengere, 2017). In practice, the success of any education programme largely depends on the underlying philosophy the curriculum design adopts (Sudsomboan, 2007). As observed by Choudana, (2008), the competency based inquiry learning is the only way to link education product with the job market.

Context, Input, Process, Product approach, developed by Stufflebeam (2000) remains a key method essential to assessment in education; it offered a structured manner of monitoring varied components of the curriculum creation. A greater concern exists in that it's only controlled by non-teaching staff, hence it is critical to determine plans that cater for every player. At school level the four components reviewed for standard assessment pay attention to the aspects of learning agenda, quest and targets, plus the varied aspects of context, input, the process and finally the result. Application to context is based on the necessity plus the occasion denoting the aim and agenda platform on which the results are achieved. Components like utilities, physical developments, curriculum and content learner related make up the input. The process entails services like educational processes, assessment and other roles. Lastly outcome assessment entails capabilities, ethics, views and desirable results needed for identifying the product and efficiency of an educational program (Stufflebeam, 2000).

Competency based curriculum has already crept dramatically across the landscape of basic education (Murray, 2015). This has been fuelled by the rationale that education needs to focus less on a traditional based learning environment to one that is student centered and prepares students for their role in the society (Reisman, 2013). The curriculum based curriculum is modeled so as to reinforce the importance of establishing knowledge together with skills and consequently applying the capabilities to practical situations.

Degree of effectiveness of a specific educational model is reliant to the principle of its curriculum design (Sudsomboan, 2007), which therefore implies that there should be a paradigm shift from knowledge acquisition to application of competencies in real life situations. Thus, a

CBC which sums up intellectual and work account in addition to the specific defining outcomes in the learning process (Edwards, Sánchez-Ruiz, Sánchez-Díaz, 2009).

According to Kabita and Ji(2017), competency refers to the capability to apply knowledge, expertise and views to practical situations to solve a problem or handle a task effectively. In practice, a learner needs only a consistent supply of resources for interaction and deciphering reason from the given instructions. This justifies the theory with which the Competency Based Curriculum is based upon (Constructivism) whose basis is that learners are active participants in the process of knowledge construction where they construct meaning out of their interaction with the learning materials as opposed to the traditional approach where learners just receive information passively (Atzori 1996). The Basic Education Curriculum Framework in Kenya (2016) asserts that the Competency Based Curriculum adapts a model which specific learning outcomes are structured to discover and nurture the unique abilities and learning styles of individual learners competencies, pooling together of skills that can be trained, command, capabilities, behaviors, attitudes, artistry, conviction, pedigree, talents and efficiency thereby facilitating the achievements of their potential (Chehly, 2018).

According to Mauranaza, Mtshali & Mukamanaza (2017), the CBC steamrolled developing countries is borrowed from developed countries and therefore developing countries are facing challenges in trying to adapt it. Frenk, Chen, Bhutta, Cohen, Crisp & Evans (2010) further argues that in this situation a reform in curriculum is hard to plan and slows the process of implementation. The competency-based curriculum discourages mere acquisition of knowledge and lays more emphasises on skill development. Change exists from mastering content to the CBC (MoEC, 2005). Therefore, there is need to change the teaching- learning approaches from

rote memorization to approaches that support development of competencies and skills that can be applied in solving real issues (Woods, 2008; World Bank, 2011).

Practically it's the proficiency to translate learning utilities: expertise, knowledge, values and views properly in practical situations (education, work, personal or professional development) (Jeng'ere, 2017).In the competency based approach, students have expectations to be offered learning utilities that they engage with and establish meaning from the interaction .This way, they are perceived not only as consumers of knowledge but as active producers of knowledge (Barman, 2011). In fact, competency based inquiry approach is considered the way to go in terms of new developments as it reinforces the unified manner of learning tasks needed to face not only the job market but also life situations (Edwards, Sánchez-Ruiz, Sánchez-Díaz, 2009).

In a Competency Based Curriculum, emphasis deviates from learner's accumulation of memorized knowledge or behavior but instead focuses on their proficiency in a particular field. A competency goes beyond a skill, it is not simply learner's accumulated theoretical experience or task oriented abilities but the aptitude to produce a personally and socially valuable outcome out of a task (Kabita & Ji, 2017).In recent times, Competency Based Curriculum syllabus is championing for new ideas as it reinforces the unified manner of learning that enables to handle both the job market and real life.

2.3 Teachers' Instructional Methodologies and Implementation of Competency Based Curriculum

In any system of education in a country any government needs active teacher participation in the implementation of the curriculum (Gani, 2017).It is critical for the government to roll out a plan that will ensure effective transition which can only be realized if the teachers are fully equipped.

Teachers are a key factor in the successful implementation of a curriculum and thus should clearly understand the elements of the curriculum.

McRae (2012) posits that teaching is a participatory process that allows the exchange and acquisition of knowledge, skills and competencies with the sole aim of transforming life. Teaching purposes to promote acquisition of desirable knowledge and skills within the school environment that can support the learners to succeed in the society (Okunbanjo, 2013). The teacher is bestowed with the responsibility of influencing mindsets as enshrined in the syllabus. However, it is upon the teacher to decide to be a facilitator or not (Dufresne, et al., 2010). Despite training recommending the selection of participatory teaching approaches, a teachers' cognitive orientation dictates the choice of teaching approaches (Tella, et al., 2010).

Teaching methods in classroom can be teacher-centred, learner-centred or mixed approach. It has been widely reported that teachers select easy to adopt teaching approaches based on their preferences (Watson, 2003). Some teachers believe learning should be learner centred whereas others belief it should be teacher centred where the teacher is a master of everything (Ahmad & Aziz, 2009). Nevertheless, teacher centric approaches have serious limitations in terms of stimulating students' abilities thus generating highly ineffective graduates (Adeyemi, 2008: Tanner, 2009). The review of the following studies however, concentrates on teacher-centred methods without explaining various approaches that are associated with it. It was the interest of this study to examine which teaching methods teachers were using in Chepkorio Ward and determine their influence on pupils' academic performance.

The method used by teachers in sharing knowledge with pupils in classroom is a factor influencing learning performance of learners at all tiers of the education 18 system. Chang

(2010) pointed out that even as effective instructional schemes may boost performance on learning; poor teaching traditions impact by limiting content mastery plus attainment of educational goals. Consequently, to enhance the performance of learners, there is need to match pupils learning styles and teaching approaches (Zeeb, 2004). Zeeb further reported that in unmatched environments, there is low pupil interest to the learning process therefore resulting to poor academic performance.

Instructional methodology entails providing a systematic method of delivery in a learning environment that is primarily learner-centered rather than teacher-centered (Mulder, Gulikers, Biemans & Wesselink, 2009). The instructional methodology should integrate the seven competencies for competency based curriculum. These competencies include: brainstorming and tackling problems, internet know-how, adapting to education, self-efficacy, citizenship, communication and collaboration and imagination and creativity (Mulder et al., 2009). Some of the important teaching methodologies that can effectively be integrated in CBC practicum are demonstration, group project, direct class participation and assessment tests (Oppole et al., 2004). Proper decision making is inevitable as it helps the teacher change pedagogy and activities with time in order to help learners achieve desired competencies.

The lecture method is one of commonly used instructional method that is employed in passing knowledge to the learners. For the learners in primary school level the use of lecture-cum-demonstration method which advocates for experiments and examples is more effective(Struyven & De Meyst, 2010). Since the competency based curriculum advocates for practices allow students to progress depending on their potential develop a capability or

proficiency relying on their power and not necessarily the setting teachers must prepare adequately to ensure the needs of the learners are captured (Cunningham, 2016).

The teachers should integrate the most effective instructional methodology in their teaching plans to ensure knowledge is tailored towards learners' abilities interests and personalities (Naimie et.al., 2012).A compliant competency based curriculum lesson plan shifts focus to embedding and infusing Competency Based aspects such as core competencies, Pertinent and Contemporary Issues (PCIs), values, non-formal learning activities parental engagement activities and key inquiry questions (KICD, 2017). Teachers of preprimary one to grade 3 are expected to have been effectively trained and prepared on infusion of those key aspects which translates to the paradigm shift from teaching to learning. Therefore, a teacher must not present a lesson without a reflective well designed Competency based lesson plan as it is a pre-requisite for successful teaching (Coppo, 2014).

2.4 Use of Instructional Materials and implementation of Competency Based Curriculum

Practically, competency refers to the power to translate learning utilities: skills, knowledge, values and views properly in all practical situations ranging from education, professional endeavors, or even personal life (Njeng'ere, 2017). Here, students have expectations on them to have translations from the learning material presented to them in the Competency-Based approach (Barman, 2011). These models are largely used within vocational education and training since there is need for quality in the occupational industry. It is friendlier in vocational training as the focus is solely on the power of a learner to conduct roles with precision and expertise. Further in vocational education, a specific capability can be channeled by task analysis into its single component expertise (Brandt & Tyler, 2011)

Instructional materials refer to learning utilities which when employed impact knowledge to students. They include textbooks, magazines, newspapers, pictures, recorded videos and models. (Cronbach, 2009).Abdullah (2010), refer to instructional materials as tools either imported locally or imported to help facilitate the teaching, learning process. They play a critical role in creating a favorable stimulating and arousing learning environment. Obanga(2005), views instructional materials as things whose use would make tremendous enhancement of delivery process as it makes it possible to involve more than one sense of the learners.

Onasanya (2017) summarized the role of instructional materials as simplifying complex phenomena concretizing abstract context and bridging difference in distance and time between phenomena classroom activities, improving the learners' communication skills.

Teaching and learning can seldom be done without the application of instructional materials since they framework for communication at the classroom level in the effort of channeling productive education (Mundica, 2017).

Adedapo (2006), states that the use of instructional materials helps teachers to catch and sustain learners interest as they gain fast hand experience with the learning. According to KICD (2017), the government through the ministry of education has availed curriculum designs to schools and in line with that doing everything possible to supply textbooks for use during instruction. However, according to Sossion (2017), teachers had not been inducted on the change from teaching to learning hence they could miss the intended purpose off nurturing every learner potential by tailoring the learning experience to the various ability levels of learners hence accommodating the different learning styles (Lawrence, 2017). The chairman of the Kenya

Publishers Association expressed concerns that teaching and learning materials had not been produced hence adversely affecting the teaching and learning process.

Effective learning can be achieved through deliberate efforts to integrate attention, motivation and use of appropriate methods of delivery in addition to summarizing and assessing the lesson (Gagne, 2016). Concurrently, Fidans (2008) suggests that the level of the use of integrating the learning situation with appropriate tools has provided production of effective instruction and successful teaching and learning.

Learning utilities entails: textbooks, illustration charts, geographical maps, audiovisual and electronic media; additional utilities includes papers and writing tools among them(pens, eraser, exercise books, crayon, chalk, drawing books, notebooks, pencil, ruler, slate and workbooks) (Atkinson, 2000). A discovery on the existence of stable positive nexus between instructional utilities and academic results was made by Adeogun (2001). To him, institutions with enhanced utilities performed better compared to those without: an argument that was reinforced later by Babayomi (1999) positing that privately owned institutions registered better performance compared to government owned institutions as a result of enough utilities on teaching and learning. Further, Mwiria (1985) notes that learner result is influenced by the standards on teaching and learning resources; he observed that schools well stocked with resources have the upper hand in examinations compared to those that are poorly stocked. Reduced performance is therefore linked to poor teaching standards and lack of learning resources.

Lyons (2012) indicates learning being an intricate role demanding collaboration on learners' motivation, infrastructure, teaching utilities, and expertise on teaching and curriculum needs. Schools' productivity is highly boosted by TLR since they are the fundamental pieces that birth

improved performance in learners. Essential utilities for teaching and learning include physical resources and facilities plus well-endowed human labor. Students are unlikely to be away from institutions that channel desirable and convenient activities to them, a role TLR plays by helping enhance access and educational results. Every resource should be provided in good standards and ample amount in institutions for conducive educational process. Momoh (2010) examined the impact of instructional utilities on learners' result in the West Africa School Certificate Examinations (WASCE). Performance of learners in WASCE was directly linked to learning utilities availability for teaching and learning; concluding that learning utilities play a greater role towards learner's performance as enhance the adoption of new thoughts and innovations while discouraging rote-learning. Quality of education is affected whenever TLR lacks or is reduced which is mirrored in poor academic performance, increased absentees, poor discipline, reduced teaching staff motivation together with unattainable school goals.

2.5 Teachers Mode of Assessment and Implementation of Competency Based Curriculum

The CBC approach to education requires formative evaluation of every unit of learning through the administration of Rubrics (Martinez 2018).Ideally a rubric is an assessment indicator preferred by the teaching and also learners in self-appraisal so as to evaluate capability indicators (KICD, 2017). Competency based curriculum focus solely on students' mastery of a competency rather than grade on completion of credit hours to determine successful completion of a unit of learning (Yoshino, 2014).Often, an assessment rubric contains sections that clearly indicate what a learner is expected to do and how much he can score. That way, a pupil performs the task fully aware of the marks to be earned per page by meeting the set preconditions.

Evaluation remains one of the undertakings and roles that identify with the education system: together with other factors or elements and individuals in the system can be or actually have been, evaluated (Joshua et al., 2006). The evaluation in schools can be formative or summative. Pupils within the institution are major player in evaluation: and a number of items have been utilized for this role. A major item towards learner summative evaluation continues to be the examinations tests. Examination of learners is a way of determining how much the students currently know (Akiri, 2013). Tests and examinations are given to pupils periodically in their educational journey. The grades produced support effective decision making therefore influencing future choice of teaching approaches and provision of resources.

Another evaluation method is Continuous Assessment Tests (C.A.Ts). C.A.Ts enable students to derive data on their general understanding of content areas thereby informing them of challenging areas which need to be focused for improvement (Susuwele-Banda, 2005). There are opportunities for teachers to monitor their success in the teaching and learning process. Further, results from the C.A.Ts can inform decision making such teaching approaches to be adopted, modified or enhanced, use of teaching aids, organization of remedial lessons, and enhancement of classroom tasks for high perfuming students. It was further revealed that completion of form four syllabus well ahead of time contributed to enhanced student performance (Wamala & Seruwagi, 2013).

In the stages of human growth, evaluation information are developed and applied in different manners to aid in management, educational processes: hence, enhancing the likelihood of academic achievement by the student and the teaching staff (Okunbanjo, 2013). Evaluation therefore aims at: offering critical data to the student anchoring his growth academically ; offer resolutions to the teaching staff with a vision to enhance changes in tutoring ,establish attainable

goals, assess the extent up to which subject goals have been attained, offer chance to further advance professional expertise, offer guidance and counseling to the student ;permits regular evaluation of the instructional as well as academic performance mechanisms, by which a manager maintains the standard of human growth process on course (Joshua et al., 2006). hence, the outcome of institution evaluation techniques remain essential not only to students, but also to teaching staff.

Adams (2015) postulates that grades are arbitrary and are not comparable across the same course taught by different teachers and sometimes across the same course taught by the same instructor. High grades might indicate that a particular learner has mastered the content presented in the course but without a proof to justify the students' ability to apply the knowledge learnt in the classroom to real world situations. Instead of focusing on content and exams a competency based program focuses on application of learnt knowledge since the ultimate goal of the curriculum is to shift from knowledge acquisition to knowledge application (Carraclo, 2012).Further assessment shifts from an emphasis on summative to an emphasis on formularize there and their judgment of the level of mastery and evaluation in criteria referenced rather than norm referenced.

Kelly, (2011) in concurrence to the evaluation through administration of rubrics suggests a paradigm shift to an assessment which is focused on different stages of instructions informs the next instructional step and engages learners in critical thinking and problem solving. In administering assessment rubrics Kabita & Ji (2017) in their submission observe that the facilitator is able to gather concrete evidence of the degree to which an individual learner has acquired and applied a specific competence in a formal or most informal learning context such as

observation questioning extended work, community service learning group discussion, project and demonstrations.

In Indonesia, Eka (2018) determined the relationship between teachers' pedagogical competencies on pupils' performance in national science exam results at Gerokgak district elementary schools. The target population consist of 6th grade teachers totalling to 29. Questionnaire was used to collect data in the academic year 2016 / 2017. The study found out that there existed a moderate level of relationship between teacher pedagogic competence and national science test results of learners at if predicted 22.09%. The pedagogical competencies explaining these variations were; evaluation of learners learning and implementation of learning diagnosis. The study by Eka (2018) was in Indonesia while this study was conducted in Kenyan setting.

Even as the advocacy for embracing competency based curriculum over content-heavy educational system maintains lead, the latter should not be thrown away. Hong's (2012) posited that the principle behind CBC development is the need for teaching staff to concentrate on teaching students the relevance of committing to education and thinking further so as to grow their proficiency towards learning to learn and grow fundamental capabilities. Hong (2012) believes: "what competency-based curriculum requires is reforming the way content knowledge is organized and brought to students, not denying its value".

Competency-based curriculum program and learning ought to offer attention to the student's demand as well as preference, offering ample opportunity required by the student to gain and regularly perform the expected capabilities (knowledge, expertise, professional conduct) and establishing a conducive environment for learning purposes. It is pursued through numerous

teaching practices, its however important to note that any curriculum program be based on evidence and paying attention to results and all teaching plans should be matched to their learning domain (psychomotor, cognitive and affective).

CBC demands from teaching staff constant revision and advancement to their educational practices. Gabriel (2010) revealed the teaching staff being unable to apply enhanced interactive teaching practices like problem resolution and innovation that are very crucial in to the CBC program and a learning setting. If students are to show a mastery of the expertise they acquire, the archaic teacher-centered practice is no longer viable. Mosha (2012) however revealed that in any case the CBC program was not properly executed there existed a possibility of teaching staff reverting back to old teaching practices. Hence they need to be sufficiently conversant with the approaches to the current teaching practices essential in making learners' learning fruitful (Kafyulilo et al., 2012).it is appropriate to shift teaching to being student-centered approach where the student directs learning process since the teacher now plays the role of facilitator during the entire process. Students within a competence based setting are viewed as active players in the development of knowledge.

An argument by Zheng and Borg (2014) is that teaching staff must subscribe to a framework created by curriculum developers that march the competency-based practices.in order for competency-based practices to bear fruits, the teaching staff ought to be smart enough and let the students involve themselves in the learning process as the teaching staff remain key contributors in the curriculum execution (Botha & Reddy, 2011; Wangeleja, 2010). It is mandatory for the teaching group to also demonstrate skill in their respective areas so as to produce targeted results (Moodley, 2013). Hence for this practice to be productive, its critical for the teacher to be well

versed with Pedagogical Content Knowledge (PCK)- a knowledge that is developed by the teaching staff to aid students to learn (Botha & Reddy, 2011).

Evaluation plans advanced for CBC practices range from conducting interviews, conferences; assess products, fieldwork, experiments, studies, tests and examinations (Dreyer & Schoeman, 2003). Hence, it is possible for a teacher to evaluate a student by conducting interviews, which is done by engaging the students individually to determine whether the student has gained the required knowledge and expertise.in conferencing, it involves the teacher conferencing with a student or a group of students focusing on an expertise that ought to be reinforced

It enables the teacher to evaluate where the students are or where they should be. Teacher may also access items provided in projects, duties, homework, portfolios or written submissions. Another alternative method a teacher may evaluate students is by monitoring results on field work, experiments, reviews, map-work), they may finally evaluate the students by way of tests and examinations (Dreyer & Schoeman, 2003). Every evaluation process basically take place applying OBE practices (Mazabow, 2003).

Dreyer and Schoeman (2003) advanced the argument that a viable evaluation learning performances is one that is achievable and important detailing the students' performance in practical situations. Arguments in the preceding sections indicate that teaching staff should plan meticulously and develop an evaluation subject that covers every student in a transparent and stable manner for the successful implementation of CBE.

Research done to evaluate the execution of competence-based program in Tanzania indicated that this teaching practice is rarely used (Komba and Mwandanji, 2015; Makunja, 2015; Kafyulilo et al, 2012; Mosha, 2012; Tilya and Mafumiko, 2010). It identified the following

obstacles towards the execution of competence-based program in Tanzania: majority of the teaching staff (80%) are not conversant with principle of competence-based program (Komba and Mwandanji, 2015); a large number of teaching staff still apply the previous knowledge-based educational methods (Kafyulilo et al, 2012; Mosha, 2012); evaluation practices applied remained the same(both for knowledge-based education and competence based program) and lastly: education still remains to be teacher- based. Competence-based program demands the student to be the attention of schooling, this however is not the case in majority of the institutions since teachers dominate the entire process. Komba and Mwandanji (2015) in their work revealed a particular concern where the teacher conducted a lesson for eighty with no teacher-students interaction leaving the learners with no chance to interact with the teacher.

2.6 Teachers' Digital Literacy Skills and Implementation of Competency Based Curriculum

Digital literacy among teachers entails ability to use information technologies to utilize, evaluate and create content using computer systems and platforms (Knobel & Lankshear, 2016). It is vitally important in 21stcentury for educators to be able to use a wide range of ICT skills. There has been an increasing surge in the application of digital technologies within institutions for promoting and development of expertise needed for effective learning (Andoh, 2012).Andoh further posits that existing schools are amending their education program and teaching practices creating a more advanced system. Technological sciences is a blend of utilities and objects in the management of information. It includes gadgets like cellular phones, radios, projectors, and television satellites computers.

Application of technology in education births the need to train the teaching staff with new pedagogical capabilities and advanced practices in teacher education. They should demonstrate awareness on policy agenda and the ability to identify specific sectors of education reform linked to the policy agenda. Teaching staff should ready for the new curriculum for a smooth transition from the traditional teaching utilities to the more technologically advanced and digital resources, where they would be training on technology that enables them to properly and easily embrace and blend ICT into the school curriculum (Al-Awidi & Aldhafeeri, 2017).Their preparedness and willingness is essential for a positive adoption and implementation of ICT in schools(Singh & Chan, 2014; Summaka, Baghbel & Samancioglu, 2010).However, lack of teacher preparedness and reduced engagement during integration to the curriculum, digital technology implementation may suffer.

Tinio (2013) teachers need to be prepared as they implement the competency based curriculum to enable transition from the traditional teaching resources to advanced digital utilities. They should be trained on digital literacy skills that enable them to properly and easily embrace and blend ICT into the school curriculum. According to Al-awidi & Aldafeeri (2017) teaching staff preparedness is essential for a positive adoption of ICT in educational processes. (Singh & Chan, 2014) therefore whenever teaching staff lack the skills, digital technology may not be implemented. Higgins and Moseley (2011) revealed that upon the teaching staff misunderstanding the role of ICT and how to use it hinders implementation. Hennessey Harrison &Wamakote (2010) identified the major obstacle to the adoption of ICT was reduced or no teaching staff with expertise and training. As a result all teaching staff should be trained on ICT skills so as to boost their confidence and capability in ICT in order for them to embrace it. A report on competency based activities by KICD (2018) on teachers trained on ICT integration

indicated 61 percent of teachers are not trained on ICT. However, teachers should be well equipped with technological skills since digital literacy is among the core competencies of competency based curriculum.

Chege (2014) carried out a research on the factors impacting teachers' readiness to adopt ICT in teaching in public secondary schools in Gatundu North District, Kiambu County. Findings indicated that 13.75% of the teachers reporting confidence in their ability to adopt ICT, it further denotes that a large percentage of the teaching staff lack technological skills to implement ICT in classes. This research also indicated that a large number of the teaching staff recommended training to improve their expertise on ICT.

Higgins and Moseley (2011) conducted a research and revealed that when teaching staff lack an understanding on the reason for using ICT in teaching and how to apply it hinders its execution. Majority of learning institutions concentrates more on the meaning of ICT rather than concentrating on adoption or application. As a result, in-service training should secure teachers basic ICT skills and train on its application during learning. Research by Hennessy, Harrison & Wamakote (2010), identified the main obstacle in adoption of ICT was as a result the teachers' ICT knowledge and skills being below par.

Buabeng-Andoh (2012) & Hennessy, Harrison & Wamakote (2010) illustrates that the teachers' view on technology controls their willingness to adopt and integrate it in their teaching roles. Additionally fear, low confidence and capabilities within the teaching staff limit application of ICT. Hence these teachers ought to be trained on ICT and in the end ensuring productivity in the educational outcomes. A report on competency-based curriculum activities by KICD (2018) on teachers trained on ICT integration indicated that 61 percent of teachers are not trained on ICT.

Teachers should be equipped with ICT skills since computer literacy remains one of the essential capabilities of a competency-based curriculum.

2.7 Summary of the Review of Related Literature

Review of related literature has been done on teachers' instructional methodologies, use of instructional resources, teachers' mode of evaluation and teaching staff digital literacy skills towards execution of Competency Based Curriculum. According to Gani (2017) there is great need for the teachers to be acquainted with the most appropriate instructional methodologies in implementation of CBC for success in meeting learners' needs. Delay (2010) asserts that the use of instructional materials demand that handbooks should be used vis-a-vie the course materials to help in linking the course books to the new curriculum.

The Facilitation training manual for early year's education (2017) required teachers to adapt instructional materials they were using in the outgoing curriculum alongside curriculum designs on the Competency Based Curriculum. This is because adequate instructional materials had not been delivered to schools. On teachers' mode of assessment, Kabita&Ji, (2016), explain that assessment Rubrics are key since they provide individual learners level of progress in the mastery of targeted core competences. However, International Bureau Education – UNESCO (2017) external report for the implementation of the curriculum expressed concerns that teachers were not actually competent in designing and constructing tailored assessment rubrics since they were not properly guided.

Hemer (2013) claims that the major problem associated with the Competency based Curriculum is pressure associated with high workloads. Staffs are made to change the way they assess students in order to compensate for this reduced teaching time. The teachers can be empowered

to overcome workloads by equipping them with digital literacy skills to increase their performance. Previous studies carried out by Komba & Mwandaji[2016]focused on the shift from content and teacher centred curriculum to competency based curriculum. A study by Sudsomboon (2010) implied successful implementation of competency based curriculum relies heavily on teachers' preparedness.

2.8 Theoretical Framework

Adom et al (2018), posits a theoretical framework being a plan for a study based on a prevailing theory in a field of study that is related to and reflects the assumptions of a research. It is the foundational rock under which the research is built. The review will adopt the constructivism theory of learning as proposed by one of the proponents Lev S. Vygotsky (1896-1934), Constructivism is based on the belief of knowledge being first developed in a social context through pair or group interaction with learning and is then appropriated by an individual (Eggan, 2004). The process of sharing individual perspectives called collaborative elaboration results in students developing understanding together which can't happen in individual settings Meter & Stevens (2000).

Constructivism views education as an ongoing process on which students learn how to innovate principles ideas and issues from themselves hence the importance of encouraging individual learners' participation (Kukla, 2000). Learning in this theory is perceived as a shared responsibility between the teachers called the facilitator and the learner.

Vygotsky, posited that to be developmentally stable with regards to the curriculum, the teaching staff should conduct schemes encompassing activities they are able to do alone and in groups assisting each other (Karpov & Haywood, 1940). The facilitator therefore, must organize the

learning activity well so as to ensure learners obtain proper direction and aspects which encourage attainment of the learning goals. The educational experience should be transparent to enable the students to innovate, enjoy, engage, cooperate and achieve socially individualized side of the truth and its application in their day to day life situations.

The Competence Based Instruction, Kenya, requires that teachers tailor the learning environment by assembling materials, resources tasks and the place of learning beforehand. In an actual classroom situation, the role of the facilitator is to highlight the learners on the expectations and then give directions after which learners in pairs or groups interact with the resources directed towards the objectives (KICD, 2017).

This study therefore, out of this theory perceives the importance of teacher preparedness in implementing the competence based curriculum whose focus is determining and nurturing the learner's unique and individual inborn talents.

2.9 Conceptual Framework

This refers to a rudder representing the investigator's synthesis of existing publications on explaining an occurrence. It is the investigator understanding of how a certain parameter under review connect. This it identifies the variables and their indicators under investigation (McGathie et al, 2011).

The main principle behind conceptual framework is providing platform for the presentation of research question driving the research being advanced in the problem statement. It is conceptualization of the relationship between dependent and the independent variables in a study (Mugenda, A. & Mugenda,O., 2007).

The conceptual framework of this research work has been developed as follows:

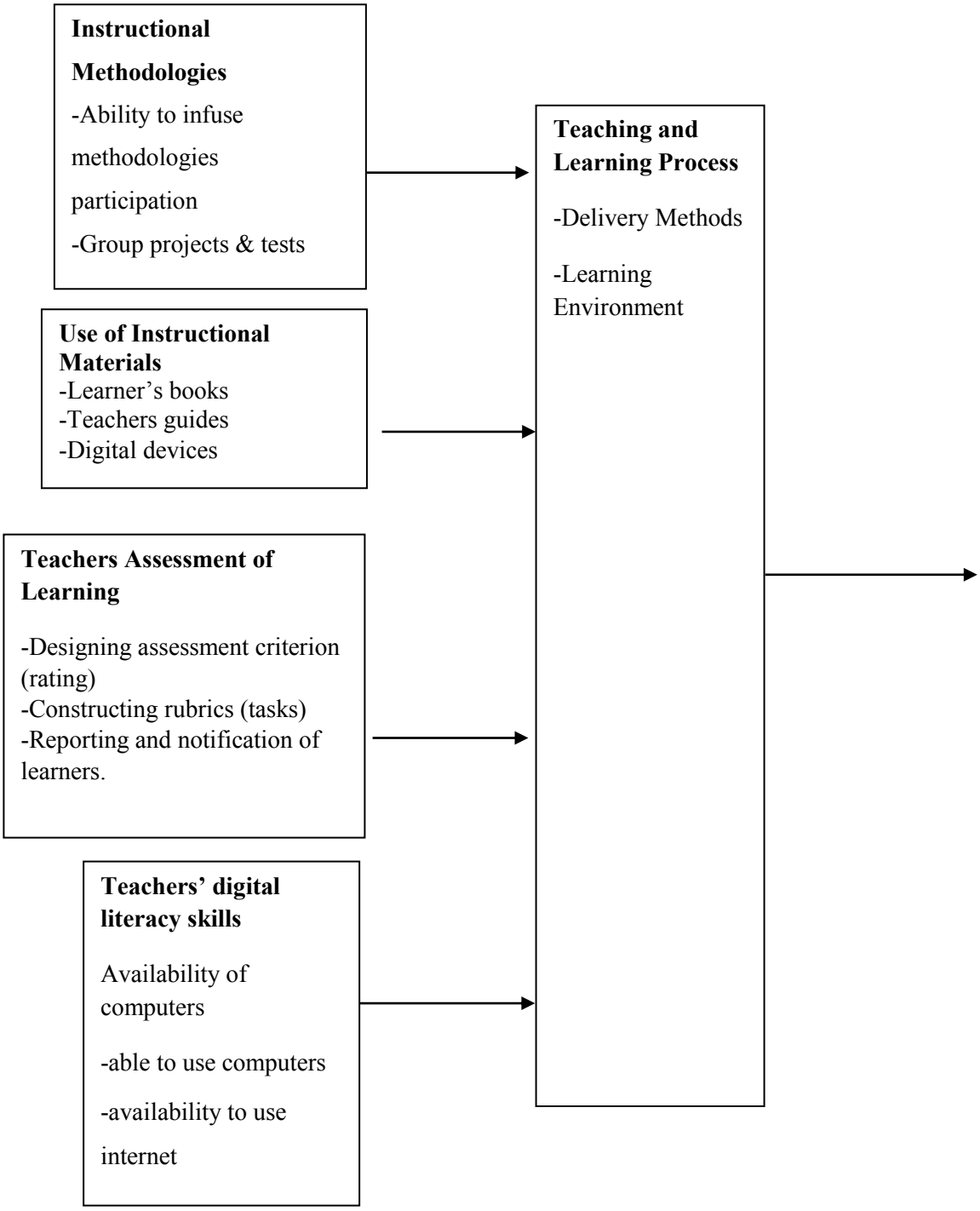

Figure 2.1 A conceptual Framework Showing the Relationship between Teacher Preparedness and the Implementation of Competency Based Curriculum

The conceptual framework adopts the input process output model. The dependent variables are execution of the CBC program in public primary schools. independent parameter are teachers' instructional methodologies, use of instructional resources, teacher method of evaluation and teaching staff digital literacy skills the process is the competency base approach to teaching and learning and the output is either the competency based curriculum will be successful or it will not be successful.

The researcher shall also inquire into the use of handbooks to align the course books used with the curriculum design. In addition, the researcher shall find out if teachers are able to use digital content as a learning resource and whether instructional materials for use have the right presentation in terms of content. On teacher assessment the teacher shall determine the level to which teachers can design assessment criteria make rubrics and report individual learners program after assessment.

Finally, the researcher shall look into the way teachers give individual learners attention to teach and assess learners whether teachers are able to craft lesson plans for all the lessons of the day and if setting the stage for each and every lesson is a challenge to the teacher.

every indicator shall be mirrored through the competency based approach to learning is making considerable strides or if there is need to look back and reconsider.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses research methodology that the researcher applied in this study, presenting the research design, targeted population, sample population, sampling procedure, research instruments, instruments validity, data collection procedures, analysis technique and data analysis procedures.

3.2 Research Design

The researcher adopted a descriptive survey design, this is because of the design has the ability to combine both qualitative and quantitative methods (Namusinge, 2016). A research is descriptive when it is concerned with how and why a variable influences another variable. It attempts to give the status quo in the area under study (Cooper & Shindler, 2003).

The design collects data at a point in time from selected members of a group paying attention to predetermined parameters (Mugenda,A. & Mugenda,O., 2003). Descriptive survey was appropriate in this study since it ensured the investigator collected data using questionnaires, interviews guides and observations, schedules. In addition to, it enabled the description of the state of affairs as far as Competency Based Curriculum is concerned, hence establish impact of teacher readiness on execution of the CBC program in Kiambu Sub County.

3.3 Target Population

The target population is a collection of animals or human beings or elements depicting a single or more common features and are preferred as a focus for a research (Mugenda,A. &

Mugenda,O., 2003). The population of this study was 21 head teachers, 4 curriculum support officers and 166 teachers (PP1, PP2, Grade 1, Grade 2, and Grade 3) in 21 public primary schools in Kiambu Sub-County. The Curriculum Support Officers have been considered in this study due to their direct involvement in assessment and implementation of curriculum in Kenya while head teachers and teachers are at the center of actualizing the curriculum and see into its fruition.

3.4 Sample Size and Sampling Procedures

Sampling refers to the process of identifying a certain percentage of individuals from the community who are a representative of the characteristics of the whole population. (Mugenda & Mugenda, 2008) asserts that 10%-30% as a sample size of the target population is enough to advance a conclusion.

Sampling size and sampling procedures are presented in Table 3.1

Table 3.1 Sample Size

Respondents	**Target population**	**Sample size**	**Percentage**
Head teachers	21	11	50.00
Preprimary Teachers	42	21	50.00
Grade 1 to 3 teachers	124	62	50.00
Curriculum Support Officers	4	2	50.00
Total	**191**	**96**	**100**

The study used 50% of the public primary institutions school heads in the Sub County which gives 11 head teachers, 2 curriculum support officer representing 50% of the total 4 participated. Accurate mean values are normally reported in large sample sizes as well as identifying outliers that skew the data in a smaller sample and provide a smaller margin of error. Both head teachers and preprimary and Grade 1 to 3 teachers selection was by a simple random sampling where each member within entire population was assigned a code which was captured in a sheet of paper folded and put in a box and shuffled. Selection was then done with replacement until the required sample size is gotten. The teachers totaling to 83 (21 PP1 and 62 Grade 1 to Grade 3 teaching staff) selection was by simple random sampling because they are the ones implementing the Competency based Curriculum.

3.5 Research Instruments

Tools for data collection within this analysis was questionnaires, observation check list together with interview guide. They were administered to school head teachers and preprimary and Grade 1 to 3 teachers, while Curriculum Support Officers were interviewed. The questionnaires were divided into three main categories. Part A collected demographic information of the respondents while part B collected information on teaching staff readiness on the CBC program and its implementation in primary schools. Lastly, Part C of the questionnaires collected data on the execution of CBC in primary schools.

Questionnaires were administered to teachers while interview guides were administered to Curriculum Support Officers and head teachers. Responses to the research instruments were hinged to a 4 point Likert scale. Questionnaire incorporated closed ended questions enabling collections of quantitative data while the interview guides contained open ended questions to

attract qualitative data. The researcher also used an observation schedule to collect hands on information on the level of teacher preparedness with regard to the implementation of Competency based curriculum.

3.6 Validity of Instruments

Validity is the capability of a tool to measure what it purports to measure (Orodho,2004). It refers to the level of correctness of the implications whose ground is on the study outcomes. It is also seen as the degree to which research findings truly reflects on the objectives under study.

Validity focuses on the accuracy of research results. The questionnaires were appraised by the supervisors and due adjustments done to realize content validity. Finally face validity was achieved through a pilot study.

According to Mugenda,A. & Mugenda,O., (2003) put it that 10% of the sample size is ideal to achieve face validity of the research instruments. Thus piloting was done to 2 P 1 and P 2 pre-primary teachers 6 grade 1 to 3 teachers and 1 head teacher who were selected randomly. Adjustments were therefore done to the items in the instruments in preparation to the main study. The respondents in the pilot study did not form part of the respondents in the entire study.

3.7 Reliability of the instruments

Mugenda,A. & Mugenda,O., (2003), indicates reliability as the measure of the extent to which the study instruments give consistency on results in two or more trials. The investigator adopted the test retest reliability test which determined the reliability of the instruments. The collected scores were then computed by the use of Pearson moment correlation coefficient using the following formula.

$$r = \frac{n(\Sigma xy) - (\Sigma x)(\Sigma y)}{\sqrt{[\, n\Sigma x^2 - (\Sigma x)^2 \,][\, n\Sigma y^2 - (\Sigma y)^2 \,]}}$$

Where

Ey2 - sum of squared y scores

Exy - sum of products of paired x and y scores

N - Number of paired score

Ex - sum of x scores

Ey - sum of y scores

Ex2 - sum of squared x scores

According to (Kothari 2011) a reliability coefficient of more than 0.5 is considered ideal for instruments to be used in social research.

Table 3. 2 Reliability Analysis

Determinant	**(r)**	**Verdict**
Instructional methodologies	. 734	Reliable
Instructional materials	. 976	Reliable
Mode of assessment	. 893	Reliable
Teachers digital literacy	. 925	Reliable

Pearson moment correlation coefficient findings reveal data collection instrument showed consistency since all readings are above threshold value of 0.5. The results reinforce reliability on the instrument.

3.8 Data Collection Procedures

The investigator obtained a research permit from NACOSTI (the National Council for Science and Technology),which was t presented to the County Commissioner and the Sub County Director of Education Kiambu Sub County. A prior visit to the sampled schools was done for the researcher to familiarize with the respondents and explain to head teachers the procedures and purpose of the study after which the questionnaires was administered immediately the questionnaires were filled out.

3.9 Data Analysis Techniques

Analysis of data commenced immediately after completion data collection, where the process involves sorting out of incorrect responses. Coding and categorization then follows depending on the items on the questionnaire and interview guide. Qualitative data was analyzed through narrative analysis which entails redesigning of responses offered by the interviewees by considering the context of every case and different experiences of each interviewees. This involved a critical revision of the primary quantitative data by the researcher before it is arranged systematically then computed applying statistical tolls SPSS (statistical package for social sciences) version 23.0 which highly reliable and effective hence recommended. Analysis on

Descriptive was applied identify frequency and the percentage of demographic features. Results of this analysis was followed by data presentation applying the use charts, pictorials and tables.

3.10 Ethical Considerations

This process involves education and awareness to the respondent by informing them about the basic role of the research so as to eliminate fear and inspire cooperation, assuring them that their rights and privacy would be preserved even after the research. The researcher was truthful to all participants and did not put them into tough conditions that could be injurious as a result participation in this study. Adopting the doctrine of voluntary participation was critical as it ensured adherence all through the entire study.

CHAPTER FOUR

DATA, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents research findings of the study. The study sought to examine the influence of teacher preparation on implementation of Competency Based Curriculum in public primary schools in Kiambu Sub-County, Kenya. Specifically, the study sought to establish influence of instructional methodologies on implementation of competency based curriculum; influence of instructional materials on implementation of competency based curriculum; influence of teachers mode of assessment on implementation of competency based curriculum and influence of teachers' digital literacy on implementation of competency based curriculum, The chapter contains response rate, demographic data for the head teachers, teachers, and curriculum support officers, data analysis, presentation, and discussion according to research objectives.

Data collection was by questionnaires, observation checklist and interviewing school heads and Curriculum Support stakeholders The questionnaires were administered to sampled teachers, the schedule for interviews involved the researcher seeking direct audience and interviewing head teachers and Curriculum Support Officers. Data analysis was by applying descriptive statistics such as percentages and frequency distribution and then findings presented in statistical tables and bar graphs. Discussion was done in prose form.

4.2 Instruments Return Rates

Mugenda and Mugenda (2003) questionnaire return rate illustrates the number of respondents who engaged in the research. respondents sampled in the research were head teachers in-charge of the schools, teachers in charge of teaching PP1and PP2, grade one to three pupils and

curriculum support officers in-charge of implementation of CBC. The return rate for the study is shown in Table 4.1.

Table 4. 1 Instrument Return Rate

Respondent	**Number administered**	**Number Returned**	**Return Rate in (%)**
Head teachers	11	11	100%
Pre-primary Teachers	21	19	90.47%
Grade 1 to 3 teachers	62	54	87.09%
CSOs	2	2	100%

The return rate for head teachers was 100.0 percent, pre-primary teachers 90.47 percent, grade 1 to 3 teachers 87.09 per cent, 100.0 percent. The questionnaire return rate for the teachers was well above 70.0 percent as well as the interview guide, which according to Mugenda and Mugenda (2003) is an acceptable proportion adequate for analysis in Social Science research. According to Kothari (2008) a response rate of above 50% is enough for a descriptive survey review.

The return rate of questionnaires was high due to the ability of the researcher to visit schools in person, engage with the respondents on questionnaires then collect them immediately. Some

teachers however failed to fill in the questionnaires in good time due to their busy schedules and assignments out of the schools.

4.3 Demographic Information

This coverage involves presentation on features of individual attributes of each respondent, including: age, gender, highest academic qualification, teaching period in an institution plus tenure of service. The result of the findings on the demographic information was used in assessing the respondent's suitability in participating in the study for having had the privilege of interacting with the variables under study. Demographic data for head teachers, pre-primary teachers and grade 1 to 3 teaching was mined by use of questionnaires then followed by tabulation.

4.3.1 Gender distribution of respondents

In this study it was found necessary to determine the gender distribution among head teachers, teachers, and curriculum support officers in order to establish gender participation of males and females in management and teaching. The findings were presented in the Table 4.2

Table 4. 2 Gender Distribution of Respondents

Respondents category	**Head teachers**	**Percent**	**Teachers**	**Percent**	**Curriculum support officers**	**Percent**
Male	7	63.4%	21	29.0%	2	50.0%
Female	4	36.6%	52	71.0%	2	50.0%
Total	**11**	**100%**	**73**	**100%**	**4**	**100%**

Table 4.2 indicates that the composition of school heads was (63.4%) males, and the minorities were females (36.6%). Male head teachers were the minority (19.0%), implying the gender balance still being an issue in schools headship, hence were not involved in decision making at school management level. However, it was noted that the composition of head teachers had not complied with the requirement of one third of either gender as enshrined in the Constitution of Kenya 2010 and Basic Education Act of 2013. Female teachers' in-charge of teaching grade one to three pupils comprised of the majority (71.0%).

The implementation of CBC in pre-primary and grade 1 to 3 was therefore articulated mostly by females than males. In such circumstances, gender sensitivity to the unique safety needs of either male or female persons in schools had not been observed. Mulwa (2017) noted that gender equality promotes teamwork among individuals irrespective of their sex and also provides a favorable environment where individuals interact with colleagues without discrimination. Influence of teacher preparation on implementation of Competency Based Curriculum in public primary schools in Kiambu Sub-County, Kenya.

4.3.2 Age Distribution of teachers

This research aimed at identifying age distribution of teachers in order to establish its influence on their capacity to implement CBC in primary schools. The findings are presented in Figure 4.1.

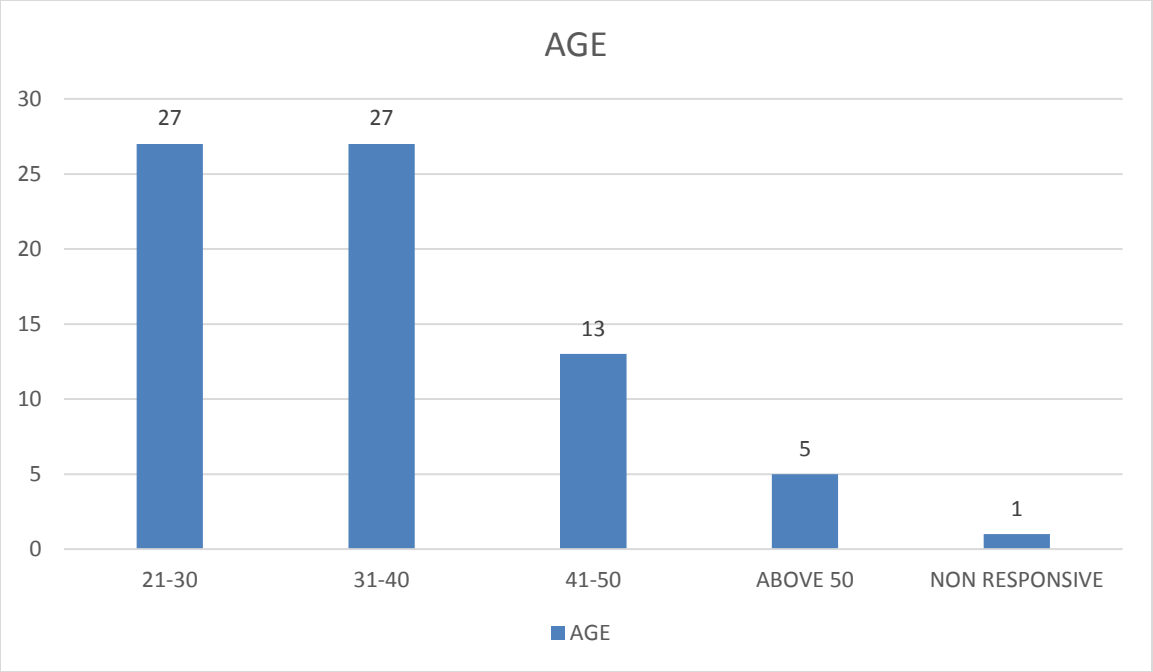

Figure 4. 1 Distribution of teachers' Age

The Figure 4.1 shows that a large number of teachers at 37.0% were in the age bracket of 21-30years as well as age bracket 31-40years. This implied that the teaching staff comprised of individuals who are young enough and had acquired reasonable conceptual and professional competencies required in CBC implementation. Evidence collected informally from teaching staff reveal that younger staff engage better and create good working relationships with learners due to the proximity in age and also because productive teaching process demands high energy levels. They also show familiarity with the current curriculum establishment and hence demonstrate familiarity with the content essential in teaching learners (Education Forum, 2006). One of the unfavorable perception on the performance gap among older and younger teaching staff expected behavior of younger teaching staff to employ trickery so as to portray the image of performing well as compared to older teaching staff who focus on ensuring that learners gain an

extensive, more comprehensive learning, rather than paying attention to what is cemented on the curriculum (Education Forum, 2006).

4.3.3 School Setting

The researcher sought to establish the school setting. This was to determine whether the establishment of a school in rural or urban area influence implementation of competency based curriculum. The findings were presented in Figure 4.2.

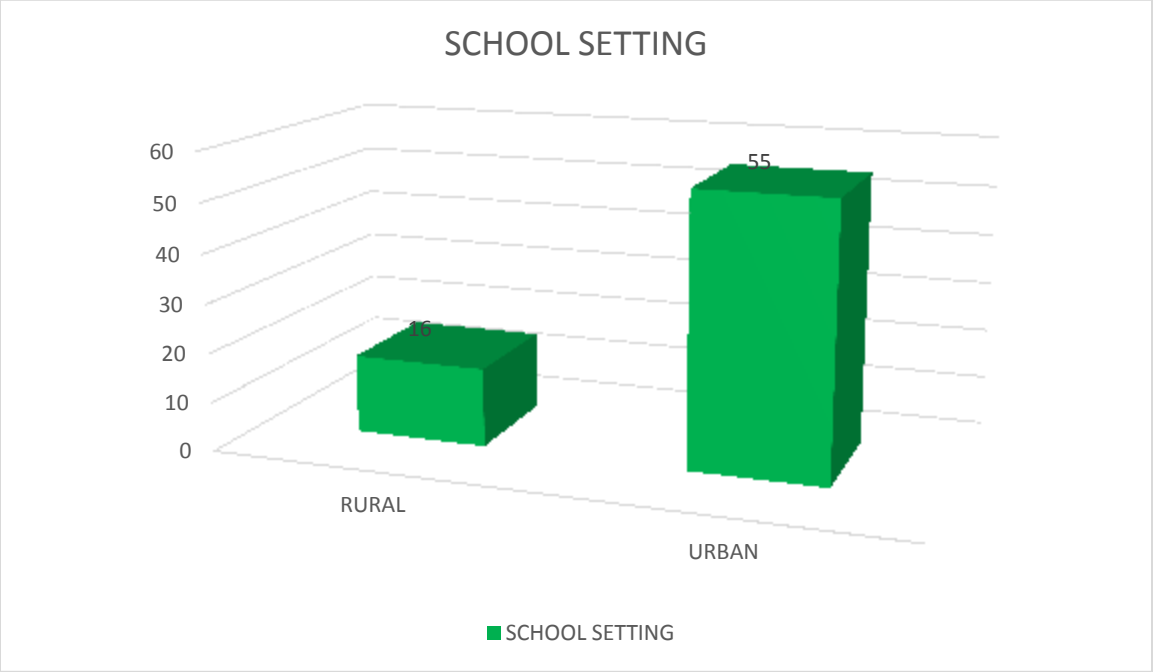

Figure 4. 2 School Setting

Figure 4.2 shows that 77% were based in the urban setting while 23% are based in the rural setting. This gives room to compare CBC implementation in rural and urban setting.

4.4 Instructional Methodologies and Implementation of Competency Based Curriculum

The first objective of this study aimed to sought to establish the impact of instructional methodologies in execution of the Competency Based program in public primary schools in Kiambu Sub County, Kenya. This study sought to establish whether instructional methodologies such as the ability to infuse methodologies that enhance participation and group tests has influence in the execution of the CBC. The teaching staff were given a statement which required them to state individuals' level of agreement or disagreement with the statements on the application of instructional methodologies to teaching in table 4.3. In the analysis mean and standard deviation effectively showed measures of dispersion and central tendency. The scale that was used was (Very Good-VG, Good- Fair-F and Poor-P). The results are shown in Table 4.3

Table 4. 3: Use of Instructional Methodologies in Teaching

	VG		G		F		P			
Statements	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**Mean**	**Stdv**
Use of instructional methodologies	15	20	48	66	10	14	5	8	4.18	.76
Integrating 7 CBC competencies	21	29	34	47	23	17	1	1	4.16	.62
Support of demonstration in teacher-leaner interaction	21	29	40	55	11	15	1	1	4.14	.47
Advocacy for direct class participation over teacher-centered approach	19	26	40	63	7	10	1	1	4.12	0.64
Utilization of group projects to complement assessment tests	12	16	42	58	17	23	3	2	4.01	0.61

Table 4.3 shows levels in the use of instructional methodologies in teaching by the pre-primary and grade 1 to 3 teachers . From Table 4.3 it can be inferred a substantive percentage of teachers 63(86%) confirmed that use of instructional methodologies is good. However, 55 (76%) of respondents indicated that the level at which 7 competency based curriculum are integrated is good. Therefore, this is a gap that needs attention if 7 competencies based curriculum syllabus coverage guarantees pupils' performance, and if syllabus coverage is a measure of competency based curriculum implementation. It is also worth noting that 64(84%) of respondents indicated that Support of demonstration in teacher-leaner interaction is good. Moreover, 59 (79%) of respondents agreed that advocacy for direct class participation over teacher-centered approach is good. However, there was a significant concern from respondents 54 (74%) agreed that Utilization of group projects to complement assessment tests is good.

From the observation, the resercher found that learners worked in pairs and groups, shared available resources, looked concerned about finding solutions to problems through exploration.The study also observed that interms of opinions learners respected each other interms of individual competencies.This implied that lerners were developing their self efficacy strenths learning to learn as well as citizenship.

However, the resercher was able to obseve that some learners had difficuty in self expression verbally and in writing in terms of what had been learnt in class.Imaginative ability was a limiting aspect of the leaners, this implies that the teachers need to infuse some competencies through utilisation of class projects.The curriculum support officers who were interviewd indicated that is is matter of concern among the pre-primary and grade 1 to 3 teachers on the

instuctional methodolies and the use of class projects in the improvement of learners competencies.

These findings concur with Gani (2017) in any system of education of a country the government needs active teacher participation in the implementation of the curriculum. Instructional methodology entails providing a systematic method of delivery in a learning environment that is primarily learner-centered rather than teacher-centered (Mulder et al., 2009). This was an important requirement for operationalization of CBC implementation at institutional level. This finding was in tandem with (Oppole et al., 2004) the instructional methodology should integrate the 7 competencies for Competency Based Curriculum. These competencies include: critical reasoning and resolution, computer literacy, learning to learn, self-efficacy, citizenship, communication and collaboration and imagination and creativity. Some of the important teaching methodologies that can effectively be integrated in CBC practicum are demonstration, group project, direct class participation and assessment tests.

Majority of teachers 59 (79%) agreed that Advocacy for direct class participation over teacher-centered approach was good. Since the Competency Based Curriculum advocates for a practice which allow students to progress relying on their ability to develop a competency at their own pace regardless of the setting teachers must prepare adequately to ensure the needs of the learners are captured (Cunningham, 2016).

The teachers should integrate the most effective instructional methodology in their teaching plans to ensure knowledge is tailored towards learners' abilities interests and personalities (Naimie et.al, 2012).A compliant Competency Based Curriculum lesson plan shifts focus to embedding and infusing Competency Based aspects such as core competencies, Pertinent and

Contemporary Issues (PCIs), values, non-formal learning activities parental engagement activities and key inquiry questions (KICD, 2017).

The study further, found that advocacy for direct class participation over teacher-centered approach has been implemented, a head teacher said that:

> "*When preprimary teachers lack skills in handling class participation over teacher-centered approach, then they are rendered handicapped in implementation of competency based curriculum*".

Gatun (2009) agrees with this argument and emphasizes those teachers competence on delivery of competency based curriculum is a priority. This implies that teachers are not adequately prepared to implement the new curriculum since they trained for a short time they are still incompetent in infusing most competencies.

4.5 Use of Instructional Materials and Implementation of Competency Based Curriculum

Within the second objective of this research, the researcher sought to identify the impact of use of instructional resources in implementation of the CBC program within public primary schools in Kiambu Sub County, Kenya. The research sought determine whether instructional materials such as learners' books, teachers' guides and digital devices has influence in the execution of CBC program. The teaching staff were given a statement which required them to indicate their level of availability and adequacy of instructional materials used in the CBC in table 4.4. They were expected to choose from (Available and adequate, Available and not adequate, Not available). The finding is displayed in Table 4.4.

Table 4. 4 Use of instructional materials

Activity	Available &Adequate	Available &Inadequate	Not adequate	Non Responsive
English	44(60%)	25(34%)	0(0%)	4(6%)
Kiswahili	40(55%)	23(31%)	3(4%)	7(10%)
Literacy	38(52%)	26(36%)	1(1%)	8(11%)
Mathematics	51(70%)	17(23%)	5(7%)	0(0%)
Environmental	43(59%)	24(33%)	0(0 %)	6(8%)
Creative arts	34(46%)	30(41%)	2(3%)	7(10%)
Christian/IRE	39(53%)	25(34%)	2(3%)	7(10%)
Music	27(37%)	35(49%)	4(6%)	6(8%)
Home science	25(34%)	30(41%)	7(10%)	11(15%)
Digital	39(53%)	24(33%)	3(4%)	7(10%)
Handbooks	33(45%)	30(41%)	6(8%)	4(6%)
Teachers guide	44(60%)	22(30%)	3(4%)	4(6%)

The findings in table 4.4 suggest that pre-primary teachers are of the opinion that instructional materials for music, home science, digital and creative arts are available but not adequate. According to the results on observation checklist, the study revealed teaching materials for

Kiswahili, mathematics and language activities were available and adequate with regards to the number of pupils in respective classes.

However, the study findings reveal through observation that all other activity areas have fairly adequate instructional materials to support learning. The interview results from head teachers and curriculum support officers, reveal that there is no 100% adequacy of instructional materials in all the sampled pre–primary schools, this is evidenced by the fact that teachers guide as well as course book guides have not been availed. Therefore, teachers have been utilizing new designs by using outgoing curriculum.

Furthermore, handbooks were not available in all learning institutions; the pre-primary teachers did not receive adequate orientation on instructional materials to enhance compliance level. Sasson (2009) raises concern with this situation and affirms that instructional materials should be developed and improved to suite teaching points. In support of this view, Wales (2009) asserts that the application of ample and relevant instructional resources helps in-depth understanding of subjects matter of learners. Keachie (2013) notes that before engaging I any curriculum implementation selection of relevant materials is a priority and that materials should satisfy demand of the student and fit the limits of the educational environment. it implies that teachers are not prepared to handle newly introduced activity areas since they are not equipped with instructional material as opposed to old activity areas, mathematics and language activity areas which are adequately equipped.

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

The third objective of this research, the researcher sought to assess influence of mode of assessment in implementation of CBC program in public primary schools in Kiambu Sub

County, Kenya. The research sought to identify whether mode of assessment such as designing assessment criterion (rating), construction of rubrics (tasks) and reporting and notification of learners has influence in the execution of the program. Teaching staff were given a statement which required them to state their level of agreement or disagreement with the statements on the teachers' mode of assessment in table 4.3.In the analysis mean and standard deviation was used to show measures of dispersion and central tendency. The scale that was used was (Very Good-VG, Good- Fair-F and Poor-P). The results are shown in Table 4.5

Table 4. 5 Teachers' Mode of Assessment

	VG		**G**		**F**		**P**			
Statements	**F**	**%**	**f**	**%**	**f**	**%**	**F**	**%**	**Mean**	**Stdv**
Ability to construct assessment rubrics	15	20	37	51	16	22	5	7	4.12	.97
Ability to construct assessment rating	9	12	45	62	15	21	4	5	4.18	.66
Reporting to learners after formative assessment	13	18	43	59	13	18	4	5	4.15	.68
Keeping assessment records for summative reporting	14	19	42	58	14	19	3	4	4.15	0.68

Table 4.5 shows levels in teachers' modes of assessment in assessing by the pre-primary and grade 1 to 3 teachers . From Table 4.5 it can be inferred a substantive percentage of teachers 52(71%) confirmed that ability to construct assessment rubrics is good. However, 54 (74%) of respondents indicated that ability to construct assessment rating is good. It is also worth noting that 56(77%) of respondents indicated that reporting to learners after formative assessment is

good. Moreover, 56 (77%) of respondents agreed that keeping of assessment records for summative reporting is good.

The results in table 4.5 reveal that a large number of teaching staff 52(71%) felt competent in designing assessment criterion or assessment rating. This finding implies that preprimary teachers have acquired enough training on the competency based curriculum and are able to implement the skills acquired that in turn ensure symmetric implementation of CBC. However, the researchers observation reveals that thre is no evidence of teachers designing their own creterion.The teachers relied on the samples that were used during training of; exceeding expectation on beng interviewed , the curriculum support officers and the head teachers had indicated that teachers had not quite internalissed how to design tailored creterions, since assessment could vary according to the task grade and respective activity areas.

Concerning designing of rubrics that is a measur of a pupils ability to perform a predefined task, the reseasher observed that the pre-primary and grade 1 to 3 teachers need support in designing rubrics.A head teaccher upon being interviewed asserted that " *the tests that are set by teachers at the end of every term has adequate question that are on competency based curriculum*"as opposed t examination of a particular scope of study in the specific area.The administered questionnaires pre-primary and grade 1 to 3 teachers indicated that they need assistance when it come to designing rubrics.

Headteacher remarked that:

"…this enhances easy curriculum implementation since teacher gets an opportunity to identify areas well taught and covered and areas where still not covered and need to be covered."

Another headteacher also indicated that: "

…it promotes teamwork among the teachers and sense of healthy completion among learners is cultured. It also encourages sequential coverage, hence quality teaching."

The responses made by headteachers show the significance of evaluation of learners regularly in schools as it has been found to helpful in assisting teachers to identify areas of weaknesses among pupils and provide avenues for improvement. Evaluation(formative and summative) brings in the culture of health competition in classrooms, assist in talent discovery, monitor teacher performance, helps in evaluating the effectiveness of teaching methods and helps in assessment of curriculum implementation levels in schools. The findings therefore suggest on the need for teachers to regularly give learners assignments and be firm on them to complete the assignments (Kimaniet al.,2013). Moreover, school administrators must regularly supervise teachers work and ensure that pupils' assignments are marked. When these evaluation practices are regularly done, performance of pupils in schools increases significantly.

Adedapo (2006), states that the use of instructional materials helps teachers to catch and sustain learners interest as they gain fast hand experience with the learning. According to KICD (2017), the government through the ministry of education has availed curriculum designs to schools and in line with that doing everything possible to supply textbooks for use during instruction.

Kelly, (2011) in concurrence to the evaluation through administration of rubrics suggests a paradigm shift to an assessment which is focused on different stages of instructions informs the next instructional step and engages learners in critical thinking and problem solving. In administering assessment rubrics Kabita & Ji (2017) in their submission observe that the facilitator is able to gather concrete evidence of the degree to which an individual learner has acquired and applied a specific competence in a formal or most informal learning context such as observation questioning extended work, community service learning group discussion, project and demonstrations. Concurrently, Fidans (2008), suggests that the level of the use of integrating the learning situation with appropriate tools has provided production of effective instruction and successful teaching and learning.

4.7 Teachers' Digital Literacy Skills and Implementation of Competency Based Curriculum

It is vitally important in 21stcentury for educators to be able to use a wide range of ICT skills. There has been a surge in demand towards application of digital technologies in institutions for service and teaching of expertise needed for effective learning. In the fourth objective of this research, the researcher sought identify the impact of teachers' digital literacy skills and implementation of the CBC program. in public primary schools in Kiambu Sub County, Kenya. The review sought to determine whether teaching staffs' digital practice skills such as ability to use computers and competency in using computers have influence in the implementation of Competency Based Curriculum. The teachers were given a statement which required them to state their level of agreement or disagreement with the statements on the teachers' digital literacy skills in table 4.3.In the analysis mean and standard deviation was used to show measures of

dispersion and central tendency. The scale that was used was (Strongly Agreed-SA, Agree- A, Undecided-UD, Disagree-D and Strongly Disagree-SD). The results are shown in Table 4.6

Table 4. 6: Teachers' Digital Literacy Skills

	SA		**A**		**UD**		**D**		**SD**			
Statements	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**Mean**	**Stdv**
Computes are available in the school	15	21	49	67	5	7	1	1	3	4	4.21	.87
I can teach using a computer	15	20	39	53	14	19	3	4	3	4	4.18	.47
I can search for files on a computer system	12	16	40	55	10	14	4	6	7	9	4.02	.76
Have been trained to infuse ICT with Competency Based Curriculum	16	22	29	40	16	22	7	22	5	7	4.00	0.64
How often do you use computers to teach	10	14	19	26	19	26	6	8	19	26	3.98	0.91

Table 4.6 shows levels in the use of teachers digital literacy in teaching by the pre-primary and grade 1 to 3 teachers . From Table 4.3 it can be inferred a substantive percentage of teachers 64(88%) agreed that computes are available in the school. Another, 54 (73%) of respondents indicated agreed that they can teach using a computer. It is also worth noting that 64(84%) of respondents indicated that they can search for files on a computer system. Moreover, 45 (62%) of respondents agreed that they been trained to infuse ICT with Competency Based Curriculum. However, there was a significant concern from respondents 29 (40%) agreed that they often do you use computers to teach. The analysis in Table 4.6 shows that majority(88%) of pre-primary school teachers indicated level of agreement with the statement. It implies that most of the preprimary school institutions have been furnished with adequate computers to facilitate learning process.

So as to identify important features of technology-specific teaching staff knowledge, existing publications covering primary technology education were reviewed, revealing that teacher knowledge remains crucial in the creation of a positive leaning towards technology within students. Most importantly, teachers' enhanced Pedagogical Content Knowledge is identified to be connected to the students' enhanced learning and affiliation to technology.

According to Al-awidi & Aldafeeri (2017), teaching staff preparedness is essential to a productive execution of information technology in educational roles. (Singh & Chan,2014) therefore whenever teaching staff lack the skills, digital technology may not be implemented. Higgins and Moseley (2011) revealed that whenever teaching lack an understanding of the role of ICT and how to use it hinders implementation. Hennessey Harrison &Wamakote (2010) revealed the major obstacle in execution of information technology being reduced levels of

teachers capabilities in ICT. As a result, the teaching staff must be well enhanced with ICT expertise to boost their confidence and capability in ICT in order for them to embrace it. A report on competency based activities by KICD (2018) on teachers trained on ICT integration indicated 61 percent of teachers are not trained on ICT. However, teachers should be well equipped with technological skills since digital literacy is among the core competencies of competency based curriculum.

Teachers were asked to show their level of agreement or disagreement with the statement that; BOM had facilitated guidance and counseling services to the students. The findings are presented in Table 4.6

The findings in Table 4.6 shows that majority(64%) of teachers agreed that the have been trained to infuse ICT with competency based curriculum. This had the implication that students were not provided with knowledge and skills of acquiring positive values and copyng with emotions, and peer pressure.

The findings is in agreement with Andoh, (2012) digital literacy among teachers entails ability to use information technologies to utilize, evaluate and create content using computer systems and platforms (Knobel&Lankshear, 2016).

Andoh (2012) further reveals that learning centres are developing their curricula and teaching practices so as to increase efficiency. Information technology refers to a collaboration of utilities and machinery applied to create, communicate and manage information. It involves gadgets such as cellular phones, radios, projector, television satellites and computers among others. (Tinio, 2013) observed teaching staff must to be trained as they implement the competency based program to enable smooth transition from traditional learning utilities to digital utilities. They

should be conversant with every technological expertise that enable them properly and proficiently adopt and apply information technology into the school curriculum.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of this study was to investigate the influence of teacher preparation on implementation of Competency Based Curriculum in public primary schools in Kiambu Sub-County, Kenya. This chapter presents discussion of the findings, conclusion, recommendations and suggestions for further research.

5.2 Summary of the Study

The study examined the influence of teacher preparation on implementation of Competency Based Curriculum in public primary schools in Kiambu Sub-County, Kenya. It was guided by the following variables as the research objectives; instructional methodologies, instructional materials , mode of assessment and literacy skills of teachers' influencing implementation of Competency Based Curriculum in public primary schools in Kiambu Sub-County, Kenya. The research was steered by constructivism principle of learning as proposed by one of the proponents Lev S. Vygotsky (1896-1934). The conceptual framework which indicated the inter relationships between the independent and dependent parameters was presented. The study employed descriptive research design because of its appropriateness to the researcher in obtaining content that explains present situation by asking one about their views, attitudes, behavior and values.

The target population comprised of all head teachers and curriculum support officers and teachers (across the 10 grades) in 21 public primary schools in Kiambu Sub-County in Kiambu County, Kenya .The sample size of head teachers in the Sub County which gives 11 head

teachers, 2 curriculum support officer representing 50% of the total 4 participated as well as 166 teachers were earmarked for participation in the study. However, 11 head teachers; 73 teachers and 2 curriculum support officer.

The research tools were tested and retested to enhance their reliability. Validity was assured by seeking advice of university supervisors. Purposive sampling was used to select head teachers, and curriculum support officer. Data analysis was done using SPSS Computer Software version 23.0 because of its effectiveness and efficiency in analyzing large amounts of data. Findings based on each objective are summarized in the subsequent sub sections

5.2.1 Instructional Methodologies and Implementation of Competency Based Curriculum in Public Primary Schools, Kiambu Sub County, Kenya.

The study shows that majority 63(86%) of teachers have used instructional methodologies in teaching.Furthermore, 56(76%) of the showed that pre primary teachers had intergrated of Competency Based Curriculum. This was an important requirement for operationalization of CBC implementation at institutional level.Headteachers supported by saying that "When pre-primary teachers lack skills in handling class participation over teacher-centered approach, then they are rendered handicapped in implementation of competency based curriculum".

5.2.2 Use of Instructional materials and Implementation of Competency Based Curriculum in Public Primary Schools in Kiambu Sub County, Kenya.

The researcher intended to investigate impact of availability of instructional resources on execution of the CBC program in primary schools. The analysis found out that 51 (70 per cent) of the teachers agreed mathematics instructional materials are available and adequate,44(60%) of

the teachers agreed English instructional materials are available and adequate and 40(55%) of the teachers agreed Kiswahili instructional materials are available and adequate. Upon observation, the researcher had seen no evidence of such materials in schools. This implied that learning had been minimal, if any, in these activity areas since instructional materials for use were at large.

5.2.3 Influence of Mode of Assessment and Implementation of Competency Based Curriculum in Public Primary Schools in Kiambu Sub County, Kenya.

The researcher intended to examine impact of teaching staff mode of assessment towards execution of the CBC program in primary schools. majority 52(71%) of pre-primary eachers were of the opinion that they have the ability to construct assessment rubrics. This finding implies that preprimary teachers have acquired enough training on the competency based curriculum and are able to implement the skills acquired that in-turn ensure symmetric implementation of CBC. However, majority 52(71%) pre-primary teachers who indicated level of agreement were of the perception that reporting to learners after formative assessment. This implied that teachers needed in service training on the aspect of assessment as far as the competency based curriculum was concerned.

5.2.4 Digital Literacy Skills of Teachers' and Implementation of Competency Based Curriculum in Public Primary Schools in Kiambu Sub County, Kenya.

The research found that a large percentage 64 (88%) of pre-primary school teachers indicated level of agreement with the statement. It implies that most of the preprimary school institutions have been furnished with adequate computers to facilitate learning process.Majority 54(73%) of teachers agreed that the have been trained to infuse ICT with competency based curriculum.

However, results of data analysis revealed that teachers needed a lot of support in infusing core competencies where 29 (40 per cent) needed support in in infusing communication and collaboration. The researcher had observed a similar situation with no evidence of learners being able to apply learnt knowledge in various contexts, lacking new, unique. Stylish ways of solving and displaying results and most learners demonstrated difficulties expressing themselves quite well in English and Kiswahili in pairs and in their groups.

5.3 Conclusion

Relying on the research outcomes, this study summarized as follows based on the study goals. The study findings reveled teachers' incompetence in the delivery of using the competency based approach. Whereas they have tried to impose self-efficacy, learning to learn and citizenship, they need adequate training and most receive ongoing trainings even as they work in the classroom an effective system of education, this ought to incorporate regular re-training of teaching staff for effective implementation of the CBC.

It concludes that during the roll out of competency-based curriculum teachers have not been relevant as well as adequate instructional materials enabling leaners in-depth understanding. This instructional material, should meet the needs of the learners as well as mitigate the constraints of the learning environment. It is against the conventional common practice for teachers to see a new design, alongside the adaptation of dated instructional materials.

5.4 Recommendations

The investigator advanced these recommendation relying on the outcomes of this review;

i) Ministry of Education should create a workable training framework that prepare teachers to successfully implement competency based curriculum. For example training on

assessment and reporting by the use of rubrics should be adequately addressed. Rubrics to test this component is goods. However, it must be made practically possible within the setting in which our students are all over the nation.

ii) Kenya Institute of Curriculum Development (KICD) should enable involvement and participation of teachers in the curriculum change process to enable effective implementation of competency-based curriculum through creation of positive attitudes.

iii) Implementation of competency-based curriculum is dependent on technological skills therefore teachers should be trained as well as equipped with technological skills to buttress curriculum delivery through classroom instruction.

5.6 Suggestions for Further Study

This research will seek to advocate for advanced studies in the following fields with regard to implementation of competency based curriculum:

i) Based on the extent and constraints of this review, the investigator proposes a repeat of this research to be conducted in other primary schools in other Sub-Counties across the country to provide comparison to the findings.

ii) Influence of pupil related factors on implementation of competency based curriculum.

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APPENDICES

Appendix A:Letter of Introduction

University of Nairobi,

Department of Education Administration and Planning,

P.O. Box 30197-00100,

Nairobi.

The Head teacher,

Dear Sir/ Madam,

RE: PERMISSION TO CARRY OUT RESEARCH

I am a postgraduate student at the school of Education, University of Nairobi. I am working on a research on influence of teacher related factors on implementation of competency based curriculum in Public Primary Schools in Kiambu sub county, Kenya.

Kindly allow me to obtain data from your school because it has been selected randomly.

The research is purely for academic purposes only and the identity of the respondents will be treated with the highest confidentiality.

Yours faithfully

Risper Mwende Njagi

Appendix B: Questionnaire for the Teachers

Kindly give your opinion to the best of your knowledge. Please indicate by use of a tick ()or filling the spaces where appropriate.

School……..

Instructions: Please tick ( )or fill the information as appropriate

Section A: Background Information

1. Kindly indicate your Gender:

Male (1) Female (2)

2. What is your age bracket?

21-30 years [4] 31-40 years [3] 41-50 years [2] above 50 years [1]

3. For how many years have you been a teacher?

Below 6 years [4] 6-10 years [3] 11-15 years [2] above 15 years [1]

4. For how many years have you been a teacher in this school?

Below six years [1] 6-10 years [2] 11-15 years [3] above 15 years [4]

5. Where is the setting of your school?

Rural [1] urban [2]

6. What is the number of students in your school?

Boys_____ Girls _____

7. Which grade do you teach……..

8. What is your highest teaching professional qualification?

Diploma [1] B.Ed. [2] M.Ed. [3] Ph.D. [4] other (specify) _____

Section B: Instructional methodologies and implementation of Competency Based Curriculum

Please indicate by use of a tick the extent to which each of the planning aspects in relation to lesson planning in line with Competency Based Curriculum have been achieved in your lessons

	Very good	**Good**	**Fairly**	**Poorly**
Use of instructional methodologies in teaching				
Integration of the 7 competencies of Competency Based Curriculum				
Support of demonstration in teacher-leaner interaction				
Advocacy for direct class participation over teacher-centered approach				
Utilization of group projects to complement assessment tests				

Section C: Use of instructional materials and implementation of Competency Based Curriculum.

Kindly tick where appropriate in the table below the extent to which have been able to use instructional materials in the implementation of Competency Based Curriculum

	Available and Adequate	**Available but not adequate**	**Not available**
English activities			
Kiswahili activities			
Literacy Activities			
Mathematics activities			
Environmental activities			
Creative art activities			
Christian IRE activities			
Music activities			
h/ science activities			
Digital activities			
Hand books			
Teachers guide			

Section D

Teachers' mode of assessment and implementation of Competency Based Curriculum.(Tick where appropriate in the table below the extent to which you have been able to perform the stated tasks in assessing learners in Competency Based Curriculum)

	Very good	Good	Fairly	Poor
Ability to construct assessment rubrics				
Ability to construct assessment rating				
Reporting to learners after formative assessment				
Keeping assessment records for summative reporting				

Section E: Influence of teachers' digital literacy skills and implementation of Competency Based Curriculum.

Please indicate by use of a tick in relation to how the technological skills influences the implementation of CBC(Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Computes are available in the school					
I can teach using a computer					
I can search for files on a computer system					
Have been trained to infuse ICT with Competency Based Curriculum					
How often do you use computers to teach					

Appendix C:Head Teachers and Curriculum support officers interview Guide

Interview Guide

The interview guide is for the purpose of collecting information on teachers' preparedness on the implementation of competency based curriculum in public 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. To what extent are teachers able to prepare with all the required Competency Based Curriculum aspects?
2. Does the curriculum integrate the 7 competencies of Competency Based Curriculum?
3. What is the pupil text book ratio in each grade?
4. Are digital devices available and are teachers able to use them?
5. Are teachers' guides available and in use?
6. To what extent are teachers able to design assessment rubrics?
7. In what ways do teachers report and notify learners and parents after conducting formative assessment for learning?
8. How is summative assessment done after completion of a term or year?
9. To what extent are teachers able to give every learner individual attention during instructions
10. Are teachers able to vary learning tasks suitable for different learning ability/
11. To what extent are teachers able to attend and give feedback to every learner individual or pair display of work after an activity?

Thank you for the cooperation

Appendix D: Observation checklist for CBC implementation

Name of School…….

Date……

	Implemented	**Not Implemented**	**Remark**
Instructional materials and assessment teachers workload			
Learning being learner-centered or dependence on the teacher (one-way)			
Use of digital devices to learn			
Amazing displays of learner work			
Learners working in pairs getting solutions to problems as a group.			

Appendix E: Nacosti Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **169640**

Date of Issue: **09/January/2020**

RESEARCH LICENSE

This is to Certify that Miss.. RISPER MWENDE of University of Nairobi, has been licensed to conduct research in Kiambu on the topic: Influence of teacher preparedness in the implementation of Competency Based Curriculum in public primary schools Kiambu Sub County Kiambu County for the period ending : 09/January/2021.

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