

STATE OF PREPAREDNESS OF KENYA'S PUBLIC UNIVERSITIES TOWARDS DELIVERY OF COMPETENCY BASED CURRICULUM

Paul Okeyo Ogembo

¹Department of curriculum and instruction, Kaimosi Friends University, Kenya

email: ogembop@yahoo.com

Abstract

Competency based curriculum (CBC) is a new dispensation in Kenya on its gradual replacement of 8:4:4 System of Education. The first cohort being in Grade Eight, Kenyan public universities seem not to be having measures in place towards its delivery. It is against this backdrop that this paper was purposed to assess the state of preparedness of Kenya's Public Universities towards delivery of CBC. Specifically the paper sought to establish lecturers' readiness for implementation of CBC; to establish universities' infrastructural and curricula material preparedness toward implementation of CBC; to establish whether Kenya's Public university schools of education are already preparing the teacher trainees towards teaching CBC programs and to establish Faculties' attitudes towards CBC programs delivery. The study was underpinned by Concern Based Model by Hall et.al (2006). The study explored empirical literature through meta-analytical approach. The study established that: universities are not materially and infrastructural ready for implementation of CBC; That most lecturers are not ready for implementation of CBC; that many public universities are not yet training their teachers towards delivery of CBC programs; That university faculties have positive attitudes toward CBC programs. The findings have implications on universities and other stake holders to prepare lecturers for CBC, university management to look for means within their reach to help in funding and develop CBC curricula materials and infrastructure for its effective delivery, schools of education to develop teacher training curricula with CBC integration.

Keywords: *Preparedness ,Kenya's, public universities delivery of CBC*

Introduction

Overview of the study

Competency based curriculum 2:6:3:3:3 system of education is a recent curriculum implementation that was rolled out in 2017 with the first students being in grade 8. The process of implementation of CBC at the basic education level has been bedevilled with multiple challenges including teachers' exhibiting gap in skills and knowledge for delivery of CBC programs, inadequate numbers of teachers, a gap in infrastructure for instance ICT gadgets and moreover most teachers were not ICT literate at the time of CBC roll out. The purpose of the study was to assess the state of preparedness of Kenya's Public Universities towards delivery of CBC. Specifically the study seeks to establish university lecturers' preparedness for delivery of CBC programs, to establish universities' infrastructural and curricula material readiness towards delivery of CBC; to establish faculties of education's

levels of preparing their teacher trainees for CBC program delivery and to establish the university faculties attitudes towards CBC.

This paper will be presented in the following order Introduction, Materials and Methods, Results and Discussions, Conclusions, implications of the findings and novelty of the study.

Background Literature

Very little studies have been done on regard to the state of preparedness of the implementation of CBC in Kenya's Public universities and it is for that reason that much of the literature reviewed here are generally drawn from the basic education level institutions where a good number of studies touching on CBC implementation have been done.

Mwasiaji et.al (2022) on Critical Reflections of Resource Requirement, Pedagogy and Entrepreneurship skills training for Competency Based Curriculum Implementation in Kenyan Universities adopted a survey design in which Five –Level Likert Scale questionnaire measuring the extent of respondent agreement and or disagreement with the statements presented regarding the subject in question were used to gather data. The CBC is emphatic of the learner centred skills instead of the traditional techniques and pedagogues that lead to maximized learning. The study assessed quality and relevance, resource requirements, pedagogical approach toward maximization of learning outcomes, university preparedness and entrepreneurship training, challenges and recommendations. Kenyatta University was the unit of analysis in the study. Participants in the study consisted of the 210 administrative staff and STEM and Entrepreneurship fields at the university. The response rate was 63.3% with results indicating that 58.65% of the respondents agreeing while 24.81% strongly agreed that CBC is relevant to Kenya's needs. About 80% of the respondents elucidated that there were adequate resources toward implementation of the CBC programs at the university. Other findings were that entrepreneurship skills are critical for the achievement of Kenya's development agenda but, however those skills should be tailored towards the market system. Fourth-three percent of the respondents agreed that they were prepared to implement the CBC since they had been sensitized in it. That the greatest challenge is that many lecturers have negative perceptions towards CBC and remain rigid in their pedagogical practices. The finding has implications toward attainment of Sustainable Goal Number 4 on Quality Education toward Kenya Vision 2030 and African Union's Agenda 2063. That proper training and sensitization are of essence to the faculty staff to prepare them towards implementation of the new educational innovation, this will equip them with right pedagogues towards CBC and skills towards STEM as prerequisite towards implementing the curriculum.

On the Question of Public universities' infrastructural and Curricula Preparedness for CBC Delivery

Several related studies on the topic of implementation of CBC have been done by scholars for example Ng'eno (2023) on the relationship between teachers' training and implementation of CBC in Public primary schools in Kericho County, Kenya undercores the significant curriculum implementation roles of teacher. The study was underpinned by Dewey's Social Constructivism Theory and adopted a survey design. The study targeted 24 curriculum support officers (CSOs), 524 head teachers, 610 Grade 1 teachers, the sample size consisted of 6 CSOs, 52 head teachers, and 61 Grade 1 teachers. Stratified, simple random sampling and purposive sampling procedures were used to select the study participants. Both quantitative and qualitative data were collected in the study. SPSS computer software program was used to analyse and summarize quantitative data while the qualitative data collected through interviews were analysed qualitatively.

A study by Njagi (2020) on influence of teacher preparedness on implementation of CBC in Public Primary Schools in Kiambu Sub-County, Kenya used descriptive survey design in which 83 grade 1-3 teachers sampled for the study. Data were collected through survey instruments such as questionnaires, interviews and observation check list/guide. Teachers agreed that materials for teacher mathematics were adequate. That materials for teaching/learning Elisha was adequate. Some teachers agreed that they had been in-serviced on basic computer literacy. That teachers lacked certain essential skills and knowledge towards implementation of CBC.

Ojung'a (2023) on influence of Preparedness in implementation of CBC in Public Primary Schools in Kiambu Sub-County, Kenya used survey study design. The population of teachers consisted of 132 teachers of grade 6 and head teachers from 28 public primary schools. Descriptive design adopted and questionnaires, interviews, observation schedule were used to collect data.

A study by Adongo (2021) targeted 151 primary schools and 150 head teachers and 620 teachers and 4560 lower primary school teachers. The findings establish gap in teachers 'pedagogical skills, lack of ICT skills. The findings have implication on necessary training for teachers of CBC toward delivery of CBC.

Kuria, A.W. (2022) on relationship between school preparedness and effective implementation of CBC: A study of teachers in Nairobi County. Questionnaires were administered to collect data. The findings have implications on provision of relevant infrastructure, and relevant pedagogical training for CBC teachers. Suto () On CBC: Assessing Kenya's Readiness and Preparedness used a survey design. The findings showed that teachers expressed they had apt in knowledge and skills towards implementing CBC. The findings has implications on useful stakeholder engagement towards provision of necessary training to enhance their implementation of CBC.

Nombo (2019) on evaluation on the effectiveness of teachers' training programs in preparing teachers towards implementation of CBC in Sumbawanga Province Municipality, Tanzania established that institutional, individuals' and contributed towards

implementation of CBC. Findings have implications on effective training programs towards CBC implementation effectiveness.

Mokoro (2020) on perception of teachers on their preparedness for implementation of CBC among secondary schools in Amara District, Tanzania used Convergent parallel mixed methods design and employed simple random sampling and purposive procedures were used to select participants in the study. The respondents consisted of head teachers, Academic directors ;111 teachers,177 students,9 head teachers and 9 academic directors making a sum total of 306 respondents. Data were collected through questionnaires, interviews guide and observation check list. Data collected through focused group discussions (FGDs) were analysed through descriptive statistics and thematic approach. The findings showed that when reporting from the responses,34% of teachers expressed have undergone training in relations to CBC implementation in the said schools in the aforementioned District of Tanzania, while 66% expressed that they had not been taken through any form of training specifically concerning implementation of CBC .The findings have implications on the educational stakeholders such as the Ministry of Education, Education Practitioners in liaison with public-private partnerships to formulate and present continuous professional support and training for the serving teachers to prepare them for implementation of CBC and in the light of any curriculum reforms-the characteristic of a good educational practices towards effectiveness of teachers' educational dispensation.

A study by Momanyi and Rop (2019) on teacher preparedness for implementation of CBC in Kenya was underpinned by Stufflebeam's CIPP Model of Educational Evaluation (1971) used to assess implementation of the CBC. Findings indicated that teachers are inadequately prepared for implementation of CBC in terms of pedagogical orientation on ICT and other learning areas, assessment procedures and preparing professional documents.

A study by Nyamwange (2020) on CBC implementation since 2018-2020: A review of current status did critical empirical literature review on a historical perspective demonstrating trends in the CBC implementation in the named period and addresses critical issues on state of preparedness and the associated constraints ranging from a gap in teaching force both in terms of knowledge and skills for implementation, numbers, curricula materials, infrastructure amongst others. The findings have implications on curriculum implementation theory and practice and measures to be put in place through the ministry of education, educational practitioners and other stakeholders towards improving the implementation of this newly born educational innovation.

Akala (2021) on revisiting education reform in Kenya: A Case of CBC explored literature review established that incongruencies characterize CBC implementation ranging from human to curricula, financial and material resources. Incongruencies are also imminent between content and pedagogical practices, and poor public participation and concluded that CBC was haphazardly implemented. Implications on training for teacher's mobilization of resources towards purchasing of necessary materials. Takes a realistic

analytical historical perspectives of principals and KNEC and corruption therein for corrupting KCSE results so they could get promoted on the job in the event that exams were done during the annual examination period.

A study by Isaboke et.al (2021) on teacher preparedness and implementation of CBC in Public Pre-Primary Schools in Nairobi County, Kenya targeted 450 pre-school teachers, 225 ECDE Centers, 225 Public-Preschools in Nairobi County, of these a sample of 20% was drawn from each category of respondents translating into 45 head teachers, 45 ECDE Centres, and 90 pre-primary school teachers. Questionnaires, interviews, observation checklist and documents analysis were used to collect the requisite data. Qualitative data collected through the interview were thematically analysed and reported, while quantitative data were analysed using SPSS computer software program and summarized into percentages, frequency tables, and Chi Square test was used to test the research hypothesis. The study found out that: according to the respondents, 65.1% of the teachers had not received relevant training towards implementation of the innovation while 34.1% reported that teachers had undergone relevant refresher courses shaping them for the task of implementing CBC. The implications of the study findings for teacher trainers and educators together with opinion leaders that they needed to work together towards mobilization of resources towards successful implementation of CBC. That is integrated effective support for teacher training orienting towards CBC implementation becomes handy.

A study by Mogere and Mbatanu (2022) on determinants of CBC implementation in Public Primary Schools in Nairobi County, Kenya used a descriptive survey study design in which 35 public primary schools in Starehe district were units of analysis. The study was underpinned by Vygotsky's Constructivism theory. Findings revealed that implementation of CBC in public primary schools in Starehe District, Nairobi County positively impacted on teacher orientations and training towards the program. It also impacted on issues around CBC programs such as parental involvement, schools' leadership style positively impacted on learners' participation on co-curricular activities which are fundamental in the CBC programs. That even the 21st century skills like creativity and critical thinking, efficacy, problem solving, communication and collaboration skills all of which have been emphasized in the CBC have somewhat been enabled in one way or the other. The findings have implications on appropriate interventions of teacher training towards CBC implementation, measurement and evaluation strategies while continuously retooling them towards effectiveness in the delivery of the programs.

Hussein (2023) on Challenges Northern Kenya had in implementation of CBC and its effects on stability of Education used survey study design in which 50 teachers of public primary schools, 300 public primary school learners from Garissa Sub-County, 5 Curriculum Support Officers and 1 Sub-County Quality Assurance Officer (SCQASO) and standards officer (CSOs) percolated in the study. The findings revealed challenges of inadequate teachers to implement the CBC programs, a gap in servicing teachers' pedagogical skills and knowledge on CBC, inadequate infrastructure and curricula materials towards

successful CBC implementation, inadequate parental engagement and naturally a climatically and transport infrastructural challenged environment hence remoteness of certain schools. The stability of the education has been made difficult also decried insecurity in the region by the teachers, consequently many teachers who come from other parts of Kenya have sought transfer to perceived safer location, leaving a serious teacher deficit in schools this complicates the educational implementation matrix.

A study by Michemi (2021) on teacher perspectives on implementation of CBC in Kenya adopted mixed methodology to explore teachers' views on implementation process of the CBC in Kenya. A closed ended 5-level Likert scaled questionnaire were administered to gather requisite data, Purposive sampling procedure was used to get 53 teacher study participants. Thematic analysis of data and presentations were done for the qualitative data so gathered in the study.

Ngugi (2019) on school factors influencing implementation of CBC in Public Primary Schools in Garissa Sub-County, Kenya targeted 27 public primary schools, 335 head teachers and all education officers. A total of 117 respondents participated in the research. Stratified and simple random sampling procedure were used to get the respondents. Data gathered through the research questionnaires were analysed quantitatively and presented in the forms of percentages, frequencies, standard deviation amongst others. The study established gaps in curricula materials, gap in teaching force, a pedagogical knowledge and skills gap of servicing teachers, inadequate infrastructure towards CBC implementation. The study established that 57% of the teacher participants had positive attitudes towards CBC programs.

Mutheu (2022) on teachers' preparedness for the implementation of attention of Assessment in Primary Schools in Matungulu Sub-County, Kenya used a descriptive survey design. The study established that gaps were available in the assessment strategies put in place for CBC implementation in Matungulu Sub-County, Machakos County, Kenya.

A study by Mutua and Waweru (2023) on Teachers' competence and its influence on effective implementation of CBC in Public Primary Schools in Machakos County, Kenya examined teachers' competence as manifested in their values, attitudes, knowledge and skills towards CBC implementation. The target population consisted of 79 Public primary schools, 941 TSC teachers, and 79 Deputy heads of Public primary schools in the named county of Kenya out of which samples of 20% from each category of respondents and or institutions was computed and hence the respondents were as follows: 16 public primary schools, 16 deputy head teachers, 188 public primary school teachers. Data were collected through self-administered questionnaires in the field, observation checklist. Quantitative and qualitative data were collected and analysed and reported accordingly. The study established gaps in teachers' competencies which could be remedied through appropriate training interventions and continuous support for teachers towards effective professional development and sufficient CBC delivery.

Sifuna and Obonyo (2019) on CBC in Primary Schools in Kenya: Prospects and Challenges of implementation used descriptive survey design and literature review. The

study established inadequate training for teachers towards CBC implementation, inadequate curricular materials and requisite infrastructure, lack of sufficient parental/guardian engagement and limited stakeholder participation. Findings have implications for Ministry of Education's intervention through adequate funding for the CBC programs, proper and continuous training sessions for practicing teachers towards correct knowledge and skills for implementation of CBC.

Waruingi et.al (2022) on Challenges faced by principals in the implementation of CBC in Public Primary Schools in Kiambu County, Kenya adopted a descriptive survey design used purposive sampling procedure to get 15 deputy heads of schools and areas of concern were about teachers' staff development. The study established gaps in teaching manpower both in numbers and in knowledge and skills for delivery of the CBC, little funding for CBC by the Government, inadequate curricula materials and infrastructure. Implications of the findings stakeholder engagement towards meeting goals of the CBC, Ministry of Education's appropriate and timely interventions through hiring of more teachers, adequate refresher courses for teachers' orientation towards delivering CBC, sufficient funding for CBC by the Government and other stakeholders through public-private partnerships.

Otieno (2022) on comparison of factors influencing implementation of CBC in Private and Public Primary Schools in Mbira Sub-County, Kenya used descriptive survey design in which teachers of private and public schools were targeted (370), 33 public primary schools, and 110 teachers from 11 private schools 2 CSOs. Data were collected through questionnaires. The findings showed that teacher motivation, teacher training, availability of curricula materials, infrastructure amongst others readily influence the implementation. The study established pedagogical gaps in teachers towards implementation of the CBC.

Mwita et.al (2022) on Availability and Use of Instructional Resources in implementation of CBC in grades 1,2, and 3 in Public Primary Schools in Migori County adopted descriptive survey design in which 604 headteachers, 1812 grade 1,2, and 3 teachers were sampled, 8 SCQAOs were sampled for study. Questionnaires, interviews were administered in the field to gather data. The study found out that there is strong positive relationship between adequate teaching/learning resources and CBC implementation indicated by Pearson Correlation Coefficient of 0.593. Implications of the findings on appropriate in-service teacher training interventions towards improving of curriculum implementation theory and practice.

Nyamweya (2023) on Kenya's CBC Crisis as a call to the Boardroom Not Courtroom adopted literature review design and is cognizant of the fact that there is transition of educational system in Kenya from 8:4:4 to 2:6:3: 3:3 system of education. That the 21st century skills form the fulcrum of the new curriculum dispensation in Kenya famously referred to as CBC which has in the communication, critical thinking, creativity and collaboration (the 4Cs) and the Digital Literacy skills that require electricity and internet connectedness to enhance the teaching/learning process online, including teachers'

pedagogical reorientation toward the same. The study established glaring gaps that are impediments towards the smooth achievement of the implementation of the CBC these include lack of internet/Wi Fi and electricity connections to most schools, insufficient teacher training towards CBC operationalization, poor and or lack of ICT infrastructure, lack of science laboratories especially for the Junior Secondary School levels

On the Question are the Public Universities already training teachers towards CBC implementation?

Nguvi (2023) on school related factors influencing effective implementation on grade 1 CBC in Mbooni East Sub-County, Kenya was underpinned by curriculum implementation theory and Technology, Pedagogy and Content (TPACK) Model. The theory maintains that success of any educational program lay on management's support factors, the teachers' abilities and clarity of the implementer. Descriptive study design was used and 77 respondents were targeted consisting of head teachers, grade 1 teacher, and curriculum support officers (CSOs). Questionnaires and interviews were administered to collect data. Interview schedules were held with the key informants (KIIs). Both qualitative and quantitative data were collected and analysed in accordance to the laid down procedures in their own merit and reported logically.

Asava (2021) on influence of teacher pedagogies on implementation of CBC in Public primary schools in Westlands Sub-County, Kenya surveyed 26 public primary schools, 26 pre-school heads, 63 grade 4 instructors and 2912 4th grade learners and 2 curriculum support officers. Findings showed that the 4th grade teachers were taken through in-service training towards CBC implementation. That teachers faced a challenge of ICT integration into teaching due to personal and organizational factors.

Benson et.al (2023) on effects of monitoring of teaching and learning on implementation of CBC in ECD centres in Meru Central Sub-County was underpinned by the theory of planned change and adopted survey design in which 14 head teachers 51 ECD teachers and CSO.W participated in the study. Sampling procedures used here included simple random, stratified random sampling were sampled for study. The study established that head teachers frequently supervised the lesson plans and schemes of work of the CBC teachers. But ICT infrastructural constraint hampered its integration for teaching/learning in the CBC program.

Wanjiku (2022) on factors affecting effectiveness of implementing CBC in North Eastern Kenya sampled 14 headteachers, 100 teachers, an education officer, and a CSO. Findings according the data collected showed that 68% of teacher reported having not been taken through training towards implementation of CBC.

A study by Kubai et.al (2021) on CBC implementation: Expected challenges in in Sports Talent Pillar for university education in Kenya findings showed weak link between in its integration into the academics and students' sports talent development.

Muchira et.al (2023). Implementation of CBC in Kenya: Challenges and Lessons Learned from South Korea and the USA was a comparative study on implementation of

CBC in USA, South Korea and Kenya the study adopted a systematic review of literature and met analysis. Findings from USA and Korea indicated that CBC resulted in improved problem solving skills, Communication and Collaboration Skills, life-long learning skills, self-efficacy, creativity and innovation skills and autonomy in the learners. There is limited models in Kenya on the effect of CBC Models on learners' key competencies. That challenges in the three countries include teacher training gaps, low program funding, inconsistent pedagogical techniques. These findings in the context of Kenya have implications for the Ministry of Education to facilitate teacher training towards effective CBC delivery within the framework of Vision 2030 on achieving quality education on Goal number 4 of the Sustainable development goals. That these challenges could be addressed by evidence based studies on teaching training aligning goals at school, local, regional and national levels towards Vision 2030 global agenda on education.

Study by Muchira et.al (2023) on preparedness of facilitator in implementation of CBC in Pre-Schools in Kayole Ward, Nairobi County, Kenya adopted mixed methods approach targeting head teachers, parents, 5 public primary schools in the named ward of Nairobi, 90 registered private schools. Simple random sampling procedure was used to get 45 private pre-schools, 2 facilitators. Data were collected from self-administered survey instruments of questionnaires, interviews and qualitative and quantitative data so collected were analysed accordingly.

Nyaboke et.al (2021) on CBC in Kenya the Challenge of Vision 2030 maintain that this educational innovation has a goal of imparting into the learners the essential 21st Century skills that include communication and collaboration skills, problem solving skills, self-efficacy skills, creativity and innovation skills, critical thinking skills amongst others.

A study by Mauki et.al (2020) on CBC implementation and the role of universities in Kenya are emphatic growing education trend towards competency based education that CBC is meant to perfect skills in the learners including communication and collaboration, problem solving skills, creativity and innovation skills, self-efficacy skills and so universities need to embrace CBC and ensure imparting of the 21st century skills to the learners in the current educational dispensation.

A study by Obuhatsa (2020) on teacher related factors influencing implementation of CBC at Lower Primary Schools in Luanda Sub-County, Kenya adopted a survey design in which target population consisted of 50 head teachers, 620 lower primary school teachers, 900 grade 3 pupils and simple random sampling procedure was used to get 15 headteachers, 186 teachers and 90 pupils. Data were collected through questionnaires, interview schedule with head teachers and group discussion for pupils. Both qualitative and quantitative data were collected analysed and reported accordingly. Findings indicated that: head teachers agreed that teachers' qualifications and competence influenced implementation of CBC (teacher $M=2.86$, headteacher $M=2.98$), majority of the teachers 87% rated themselves as having requisite knowledge and skills for delivery of the CBC, while 87.1% agreed that content and knowledge influences how a teacher engages with the learners in teaching learning session, 80.71% maintained that they were well

equipped with the necessary knowledge and pedagogical skills and attitudes towards delivery of CBC. A good number of teachers maintained that they did not perform well in integration of ICT into CBC implementation due to inadequacy of the ICT infrastructure and gadgets in schools and lack of ICT pedagogy for the CBC delivery.

Ibuathi and Lideke (2022) on necessity for up-scaling resource mobilization for implementation of CBC at basic education cycle used online surveys to collect requisite data on the matter in question and were categorical regarding the necessity of curricula, financial and teaching resources towards successful implementation of the CBC. However, it was reported of biting challenges of human resources, material and financial resources which essentially handicap the effectiveness of delivery of CBC in basic school cycle. The study found that 70% of the teachers at Kakum refugee camp were sensitive to the plight of the learners in their respective schools. That the rural urban movement which also characterizes trained but unemployed teachers who generally move to town in search of job opportunities that could be brought by urbanization and that learners' failure to adequately interact with the qualified teachers is a bottle-neck towards their acquisition of the requisite 21st century skills of the CBC.

A study by Waiganjo et.al (2020) on implications of class size in teaching Agriculture in secondary schools :Kenya's Challenge in implementation of CBC adopted descriptive survey design in which 151 agriculture teachers were surveyed .Instruments for data gathering included questionnaires, interviews and observation guide .Findings revealed that overenrollment of students in class tend to make teachers teach using teacher-centered techniques which may not make learners acquire the essential learning skills of the 21st century. Mulandi (2020) on influence of leadership roles in Public ECD Education Centres on transition to CBC in Msambweni Sub-County, Kenya targeted headteachers, teacher and Boards of Management .The respondents were distributed as follows: 17 headteachers, 34 class teachers, and 17 members of B.O.M. Questionnaire was the main instrument for data gathering. Chi (χ^2) test showed that mentorship, planning, commitment and motivational roles of a leader influences transition from 8:4:4 to CBC.

Cheptoo and Ramadas (2019) on Africanised CBC: The 21st Century Studies are cognizant of the fact that CBC is emphatic on skills acquisition especially the 21st Century skills such as self-efficacy, Computer Literacy, communication and collaboration ,creativity and innovation, Problem solving and critical thinking skills. The researchers are keen on the fact that the current version of CBC on offer seems to be foreign and hence the concern is that Kenya need to have Africanised version of CBC for implementation and not that which appear like western-inclined one. Implications of this concern is reorganizing the CBC in the context of Africa not in the context of outside world as it is currently designed.

Ongesa (2020) on Critical thinking skill gap in Kenyan Educational Curriculum: The 21st Century Skills for Global Citizenry is observant that across the world the learning goals of elementary, secondary and higher education curricula emphasizes the development of critical thinking approach. Critical thinking as one of its objectives but critical review

reveals that education systems practices competitive exam, rote memorization over CT and other 21st century skills.

Kiwei (2023) on influence of teacher characteristic on implementation of CBC in Primary Schools in Molo Sub-County, Kenya was underpinned by Gross Theory on Curriculum implementation. The study adopted mixed methods which specifically convergent design that incorporated qualitative phenomenological design and quantitative cross-sectional design. Eighty-three Schools, 83 heads of schools, 830 teachers were targeted out of whom 165 teachers, 17 heads of schools and 17 schools were sampled for the study using simple random sampling procedures. Data were collected using questionnaires, interviews with the head teachers and observation checklist. Both quantitative and qualitative data were collected. For inferential statistics, linear relationships were tested between the variables. Finding demonstrated that teacher qualification, technical skills and CBC implementation are strongly related. These findings have implications on the stakeholders' need to put measures in place to equip teachers with the right knowledge and skills in pedagogy, teacher qualifications and competencies, and technical skills and continuous teacher support towards effectiveness of CBC implementation so as to bridge the gap between curriculum implementation theory and practice.

A study by Masika (2022) on CBC implementation: assessing Kenya's readiness and preparedness maintain that CBC implementation is bedeviled by multiple challenges that raises concerns as to the state of preparedness for the new educational innovation. The study established that not all stakeholders were involved in the curriculum design and development. That teachers were not adequately trained on the CBC. Most teachers reported low digital literacy skills yet it is one of the fundamental 21st century literacy skills that learners are expected to acquire and practice. That teaching/learning materials were deficient and all these gaps bears heavily on educational quality.

Okeyo (2023) on preparedness of teachers for implementation of CBC in Public secondary schools in Nyamiro County, Kenya used concern adoption model and used purposive sampling procedures to get 483 respondents. Questionnaires, interviews, observation schedule and document analysis were used to collect data. Vivo software was used to analyze qualitative data. The study established that secondary schools of were ill-prepared for CBC implementation.

Akhwesa (2023) on preparedness of facilitators in implementation of CBC in pre-schools in Kayole Ward, Kenya. Findings included low parental engagement, that gaps in curricula materials and infrastructural facilities have been exhibited in the CBC implementation.

Orina (2022) on preparedness of facilitators in implementation of CBC for science learning areas in public primary schools in South Mugirango, Kenya used descriptive survey design and sampled 20 science teacher. The findings showed gap in science teachers' preparedness in implementation of the programs. The findings have implications for

stakeholders concerned with teacher training to give them necessary training towards CBC science implementation.

Chepkemoi et.al (2022) on institutional preparedness on implementation of CBC in Public primary schools during the COVID-19 Pandemic used survey design. Target population consisted of head teachers of grade 1-3 learners drawn from 120 public primary schools. The findings showed lack physical infrastructure, ICT infrastructure, and inadequate curricula materials. The findings have implications for the Government through Ministry of education to provide enough funding towards infrastructural development for CBC implementation.

A study by Mwang'ombe (2021) on CBC in Kenya: Teachers' understanding skills, reality on the ground, success, challenges and recommendations used survey method to collect data. The study established inadequate teacher preparedness for CBC implementation, other gaps were imminent in infrastructure and curricula materials.

Muruiki (2022) on factors affecting effective execution of CBC in the primary schools in North Eastern Kenya adopted a survey study design in which 14 head teachers, 100 assistant teachers, 1 education officer and 2 quality assurance officers were sampled for the study. Questionnaires and interview schedules were administered to collect data. Findings from the survey showed that 68% of the teacher respondents reported having not been taken through refresher training towards CBC implementation and 57% of the teacher respondents reported readiness for CBC. It was reported that teaching/learning curricula materials were plentiful. However, gaps were reported on physical infrastructure and ICT gadgets too were deficient, hence negatively impacting on implementation of digital literacy.

Owidi and Lyanda (2023) on Teachers play critical role in curriculum design, development and implementation was underpinned by Bergstein's theory of pedagogic discourse that encapsulates the teachers' role in curriculum design, development and implementation. It postulates that constructing a pedagogic discourse requires three interrelated rules of distributive, recontextualizing and evaluating activities and these rules are hierarchically related so that one can exist without the other. Teachers are able to collect data from various groups leading to giving the curriculum the meaning that it so deserves. The teacher also decontextualizes expert information by simplifying and refocusing a given content. Finally the teacher evaluates the activities and gives feedback for important improvement and sustainability of the curriculum. The knowledge generated by experts from different fields is recorded in a highly complex symbolic forms that must be decoded and translated into pedagogies that are accessible by learners and non-specialists that can also be done by teacher. The CBC curriculum ought to have embraced Bernstein's theory during its development. Teachers' roles were not clearly defined consequently the confusion that rocked the implementation process. Reports have been made of teachers being inadequately prepared for the CBC implementation due to rushed refresher courses, poor teaching/learning materials. Ajuoga and Keta (2019) on CBC for Kenyan Primary Schools: implementation challenges amongst stakeholders in

Kenya used literature review and finding revealed gaps in the implementation process with implications on educational quality. Implications these findings for stakeholders including Ministry of Education, Science and Technology, KICD, TSC amongst others to organize structured teacher retooling mechanisms towards ensuring effectiveness of implementation of CBC. Riechi (2021) on Challenges towards implementation of CBC in primary schools in Nyamira County, Kenya adopted survey design and established teachers' pedagogical gaps and infrastructural gaps with negative consequences on quality. Wilbrodah et.al (2021) on the implementation of CBC: Challenges and opportunities was underpinned by constructivist and transtheoretical models. The study targeted 203 public primary schools in Nairobi city, Kenya and 24 assistant teachers participated in the study. The study established that overenrolment in public schools make achievement of learner centered techniques difficult to be realized and unfortunately low cost private schools that could otherwise have absorbed a good number of the excess enrollees in public schools have of late been closed down. Ibuathi (2022) on necessity of upscaling resource mobilization for implementation of CBC and basic education cycle established serious gaps in curriculum resources in Kakuma refugee Camp schools and that teachers in the camp never considered the plight of the learners and that the teacher lacked pedagogical skills in CBC implementation. Kariuki (2021) on education curriculum traditions in Kenya an account and progress to Competency based education policy did literary criticism in regard to transnational and globalized concern on education of this magnitude as its goals are to enable learners acquire social life skills and all round quality framework through learning by doing.

On the question of Public Universities Faculties' attitudes towards CBC implementation

Munyoki (2022) on the state of CBC in Kenya: the benefits, weaknesses of CBC, achievements used survey design. The study established that CBC has goals that if met will perhaps solve social life skill gaps that characterized graduates of 8:4:4 that the government need to put in place mitigational measures toward solving the challenges of CBC implementation. The CBC skill based that is ongoing. Sitienei (2020) on school based factors influencing implementation of CBC in Public primary schools in Kibera Sub-County, Kenya used survey method in which 9 head teachers, 450 assistant teachers and 1200 grade 4 pupils were sampled for the study. The findings showed that infrastructural gaps influenced implementation of CBC, teaching force gaps also influenced CBC implementation. Mutheu (2024) on teachers' readiness on implementation of CBC in lower primary school pupils in Mumbuni Zone, Kenya used survey design in which 40 teachers were surveyed. Questionnaires were used to gather data. The study established that many teachers 80% reported not having undergone training toward CBC implementation implying they were not ready.

Namwambah (2020) on Principles of rational pedagogy :an insight in Kenya's CBC explores the goal of CBC and its skill-based emphasis and its inclination towards developing holistic being human development in which student learning to learning and

learn by doing and geared towards Sustainable development goal Number 4 quality education in vision 2030. Benard (2020) on education for sustainable development in Kenya: Rhetoric and Reality explores the goal of CBC approach to its implementation towards skill based approach, pedagogical implications, Theories and their relevance, framework, success, storms and challenges and proposed solutions. Jesse and Olela (2021) on education in the new era: challenges and opportunities from content based curriculum to CBC in Kenya uses analytics criticisms of 8:4:4 to CBC 2:6:3:3 system of education that practical life situation and skill-based curriculum that is likely to provide a solution to the swelling unemployment situation in the country largely triggered by the kind of educational orientation. Okello et.al (2022) on the influence of CBC on pupils' performance in primary schools in Ugunja Sub-county, Kenya are categorical that CBC was geared towards attainment of Universal primary education and that it will go along leading to quality education. That it take learners 21st century skills including self-efficacy, critical thinking and problem solving, creativity and imagination, communication and collaboration, citizenship, digital literacy amongst others which are essential towards quality education framework. A study by Nthiga (2023) on contributions of effective decision making on management of education in CBC era in Embu County, Kenya adopted a survey study design 43 people were sampled to participate in the study. Interview schedules, participant observation technique techniques were administered to gather data. Qualitative data were thematically analyzed and presented, The study established that effective decision making in educational management creates interest in the learners as learning become learner centered and that this is essential towards attainment of effective implementation of CBC. Pale and Amukuwa (2020) on CBC in primary schools in Kenya: opportunities and challenges of implementation used survey study design and examined teacher preparedness, availability and adequacy of curricula materials, level of collaboration between different government agencies towards CBC implementation, and opportunities available towards effective implementation of CBC in schools. The study surveyed 200 primary schools, 200 head teachers, 4 KNUT sub-branch secretaries of Bungoma County. Questionnaires, interviews and observation schedules were administered to collect data. Findings showed that classrooms were overcrowded with implications on quality and that the teacher lacked certain essential skills and knowledge worth for the success of the CBC implementation. The findings have implications for stakeholders to establish more infrastructural facilities for example through public-private partnerships towards infrastructure, TSC KICD, Kemi and other stakeholders to look for sustainable retooling of teachers towards CBC implementation. Tamrat (2022) on staff commitment and students' expectations on the CBC implementation in the Eastern Ethiopian universities: Rhetoric versus reality adopted a convergent mixed methods in which 11 people were interviewed, 20 participants through FGDs and 31 participants were purposively sampled for the study. The findings showed that the sampled universities proposed that a curriculum development model be developed to help lecturers in the implementation process. That the concept CBC was beyond the ken of most university

lecturers. That most students lacked usage of English. That CBC was not incorporated into subject curriculum. Moris (2019) on influence of CBC on pupils' performance in primary schools in Ugunja Sub-County, Kenya adopted a survey design in which teachers, education officers, participated in the study. The study was underpinned with Tyler's objective oriented Curriculum evaluation model. The findings showed that CBC has influenced pupils' performance in Ugunja, Mucheni et.al, (2022) on education technology and CBC in Kenya: does technology matter? explored literature review and established that technology exist to support CBC albeit lack of policy framework for it. Asava (2021) on teachers' pedagogies on implementation of CBC in public primary schools in Westland Sub-county, Kenya adopted descriptive survey design in which 26 elementary schools, 26 head teachers, 63 grade 4 teachers and 2912 grade 4 pupils were targeted for study. The study established that head teacher and the teachers had undergone refresher courses towards CBC. That there were enough curricula materials save for a gap in digital equipment. Ajuoga and Keta (2021) on CBC for Kenyan primary schools : Challenges amongst the stakeholders in Kenya explored critical review of relevant literature and established that CBC is the process of implementation but some gaps are imminent on teachers' pedagogical orientation toward digital skills a scenario that could be remedied through formulation and implementation of inservice for teachers by the stakeholders such as the Ministry, KICD, TSC, KNEC amongst others towards efficiency in CBC operationalization.

Munyao et.al (2023) on Teacher instructional preparedness on the implementation of CBC in Public Primary Schools in Lamu West Sub-County, Kenya adopted a survey study design in which target population consisted of 567 teachers, 65 headteachers and 12 Education Officers out of whom samples of 211 teachers, 6 Education officers and 19 head teachers were gotten to participate in the study. Questionnaires and interview schedules were administered to collect the data. The study was underpinned by Teacher Efficacy Theory. The research established that: the teachers reported their insufficient training on ICT integration into teaching and learning neither were there hard any of sufficient infrastructure for the same nor were the teachers pedagogically orientated for the digital literacy skills that fundamentally form part of the essential 21st century skills worth dispensation of to the learners.

Matere (2024) on From 8:4:4 to CBC: the emerging issues of Transition in Education in Kenya adopted a literary criticism and literary appreciation on the subject and were cognizant of the fact that transition from 8:4:4 system of education to Competency Based Curriculum is at the center stage of Kenyan Education today. The study established an association at 5% significant level between the variables of emerging issues and transition by teacher respondents ($X^2 = 157.072, df = 9, p = 0.00$). That one of the key challenges was the cost of implementing the new curriculum which requires a lot of money to put into place human, material and infrastructural resources towards the success of implementation of CBC programs. That gaps are imminent in the professional ill-preparedness of teachers towards actualization of the implementation of CBC. That sustainable remedies to these challenges would guarantee effectiveness of implementation of the CBC that is inclined

towards the 21st Century new digitized social transactional dispensation in the global fashion.

Kirima (2022) on preparedness and effective implementation of CBC :A Study of Learner knowledge in Nairobi City,Kenya adopted a descriptive survey design in which target population consisted of teachers,community leaders and 10 schools.A total of 80 questionnaires were administered out of which 65 (81%) were filled and returned.The study was anchored on Human Capital Theory.The study established that the CBC implementation is riddled with a multiple challenges ranging from inadequate preparation of practicing teachers for the programs,deficient infrastructure for the programs,lack of parental/guardian engagement in the implementation process and othe logistical issues and hence ill-implementation.

The work of Isaboke et.al (2021) on teachers' preparedness and implementation of CBC in Publoic Primary Schools in Nairobi County,Kenya targeted a population of 900 respondents comprising of 450 primary school teachers ,225 ECDE teachers and all the 225 head teachers of the total of 225 schools at the time of the study.The findings were that 65.9% of the respindents had not been taken through refresher training towards CBC implementation.While 34.1% had undergone some training towards CBC implementation. Njiru and Odundo (2024) on ECDE Teachers' preparedness and professional development for CBC adoption in Kenya Higher Education Institutions adopted mixed methods design.The study established that students acquired creativity learning in real life situation leading to leading to increase in students' academic achievement .

Mauki et al (2020) on CBC implementation and the role of the universities in Kenya adopts literature review study design from which meta analysis of relevant studies were done.The scholars are cognizant of the growing trend of education towards competency based education (CBE).The study was destined to find out the attributes of the CBE programs and with inkling towards skill acquisition towards attainment of global educational orientation towards acquisition of necessary competencies.The CBE in the context of Kenya is drawn from a number reports in the Kenyan education sector .

Omboto (2022) on teacher preparedness in implementation of digital literacy program in public primary special schools in Nairobi County,Kenya adopted a cross-sectional survey design and phenomenological approach were used.The target population consisted of teachers,head teachers,and Ministry of Education officers .Total sample of all participants consisted of 190 out of which,136 teachers,49 head teachers and 5 MOEST officers were sampled.Findings demonstrated gaps in teachers' knowledge of pedagogies towards CBC implementation.That there were inadequate ICT infrastructure ranging from internet connection,to physical ICT gadgets and that thes are weighty hurdles worth clearing towards smooth operationalization of the CBC in Kenya today.That there are also gaps in finances towards purchase of curriculum materials, hiring and timely refershers training and continuous support for teachers.

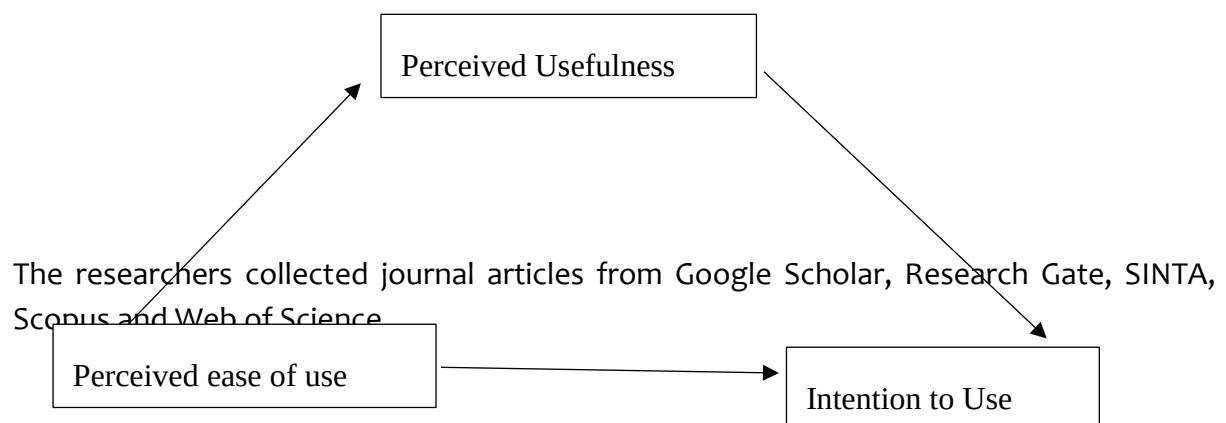
Otieno (2020) on integrating digital literacy CBC adopted literaturwe review and examines the 21st century sills whose effective implementation are facing uphill task due

to multiple factors including teachers' lack of pedagogical knowledge, skills and attitudes towards successful dispensation of CBC program. That this is also reflected in the Kenyan Public universities towards operationalization of the CBC programs

METHODS

This study involved in-depth review of Empirical Literature (EL) on the subject. The central issues of the study are underpinned by Technology acceptance model developed by Davis (1989) that has three essential components namely; Perceived ease of Use (PEU); Ease of Use (PU) and Intention to use (IU). Studies have shown how perceived usefulness of educational technologies usually have a bearing on its adoption in HEIs-that it affects both the students' lecturers' administrative assistance to accept or reject technology. That Ease of use of technology will influence intention to use technology-the context of the current study Intention to use technology in the current study, e-learning.

Theoretical framework: technology acceptance model by Davis (1989)



RESULTS AND DISCUSSION

Evidence from the studies reviewed indicate that universities are not so far are ill-prepared for implementation for the new curriculum the CBC this has been reported by several studies including the work of Mwasiagi et.al (2022). That universities are not faculty, curricula and faculty prepared toward delivery of the CBC just like the institutions offering basic education in Kenya as reported in the studies by scholars such as Kuria, (2020), Mokoro (2020), Nombo (2019), Momany and Rop (2019), Orina (2022), Chepkemoi (2022), Nchiga (2023), Ongesa (2020), Asava (2020), Akala (2019 & 2021), Benard (2020), Maskia (2022), Namwambah (2020), Mulandi (2020), Sitienei (2020), Kariuki (2021), Riechi (2021) and Owidi and Lyanda (2023). These scholarly work on CBC implementation covering areas of infrastructure, state of infrastructure, state of knowledge and skills preparedness of implementers, material preparedness, amongst other requirements for success in the implementation of curricula all demonstrates gaps hence the need to bridge the gaps towards effectiveness of this noble educational innovation of CBC that is supposed to equip learners with the required 21st Century

knowledge and skills toward global citizenry. This is believed will lead to achievement of educational quality within the blue print of Sustainable Development Goal Number 4 that will also lead to the achievement of Kenya Vision 2030 and Africa Union's Agenda 2063. This situation of unpreparedness in new curriculum dispensation in Kenya has been the order of the day including the implementation of 8:4:4 System of Education that replaced the 7:4:2:3 system of Education and now the CBC that is gradually replacing the aforementioned system of education. So Kenya seems to be having gaps at initial implementation of new educational programs, a practice that many a time compromise standards and hence need to be changed and a new model for effective future new curricula dispensations be paved.

Implications/Novelty of the study

CBC is transitionally replacing 8:4:4 system of education and its is geared towards achieving quality education as provided for by Sustainable Goal Number 4 in the Vision 2030 and yet despite the fact that the first enrollees of CBC are currently in grade 8, the public universities seem not yet ready to deliver the programs, neither have they develop curricula tailored towards. This makes this area urgent for study and to fill the knowledge gap in that respect.

CONCLUSIONS

That the public universities are not materially and infrastructurally ready for the delivery of the CBC. That most of the lecturers are not ready for CBC delivery. That generally the public universities in Kenya are not ready for CBC delivery. The Some faculties have positive while others have negative attitudes towards CBC and these have implications of its operationalization

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