

## **Innovation and Strategic Management Practices in the Implementation of Competency-Based Curriculum in Kenya**

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### **ABSTRACT**

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*Kenya has seen several developments in its schooling and educational system since gaining its independence in 1963. Right from independence, the Ominde Commission (Ominde 1964) sought to reform the educational System, from one that was racially stratified to a more uniform one. Then came the 7-4-2-3 System that had 7 years of primary school, 4 and 2 years of lower and upper secondary and 3 years of university. Thereafter, following another assessment and subsequent recommendations of the Mackay Report in 1982 (Mackay 1982), the 8-4-4 System was introduced in 1985. It extended the life of primary school to 8 years, 4 secondary, and 4 university years. This System has been in place until the Competency-Based Curriculum (CBC) succeeded. The 8-4-4 System has its final cohorts going through the final assessments of primary school. Kenya has shifted the curriculum landscape within the contemporary education system by implementing the Competency-Based Learning Curriculum (CBC). The competency-based learning curriculum is a system of instruction that focuses on both the skills, reporting assessment, and instruction intended to enhance skill capabilities. The curriculum promotes individual wholesome wellbeing and the acquisition of skills that will enhance competency both in professional and real-life application. The design, roll-out, preparation, and implementation of the CBC, just like its predecessors, have not been without challenge and criticism. There has been passionate debate on its efficacy, currency, and relevance in the development of learners in today's modern society. This paper seeks to sift the chaff. The paper will by way of study, assess the place of strategic management practices in the wholesome running of educational systems and curricula, with a critical focus on how these practices have contributed to any hits or misses in implementing the CBC curriculum in Kenya. The study data was collected from collected emanated from education stakeholders such as teachers, heads of schools, and other educators and a survey of select public and private primary schools in Kenya. The highlighted challenges; infrastructural, teacher-learner ratio, process delivery challenges, and human resource, are crucial in determining whether the implementation of the CBC has and will be successful. They will be essential in forming both statutes and regulations that will streamline the competency-based curriculum to ensure that children accessing education at the lower levels obtain skills that will be practical in the professional world and the advancement of their careers.*

**Key Words:** *Innovation in Education, Strategic Management Practices, Implementation of Competency-Based Curriculum in Kenya*

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#### **1.0 Introduction**

The competency-based curriculum is based on enhancing knowledge and skills through a system of instruction, reading and assessment coupled with academic reporting, which tracks the student's development. The rationale for the CBC is pegged on the promptness of society

and the nation to adapt to the current trends in education. In a fast developing and highly competitive world, emphasis is therefore on using competency-based education and the training concepts to match the global human resource requirements. The vitality of the CBC is to ensure that the skills gained in the education curriculum can be applied in real-life situations and professional careers. To this end, CBC is vital because it ensures that attitudes and skills are on all fours with the expectations of the human capital market. It is prudent to note that the success of any education program is significantly dependent on the philosophy and design of the curriculum. Revisiting the education reforms and experience with other curricula such as the objective-based curriculum of the 8-4-4 System shows the need for a paradigm shift. The implementation of the competency-based curriculum was first championed by the United States of America Department of Education in the year 2001 (King-McKenzie, 2017). In this light, the competency-based learning summarises academic and professional profiles, thereby ensuring that documentation of knowledge. The learning parameters will embed in the student a permanent attitude and cognitive ability that will be essential in attaining success in their various career paths.

The success rate of implementing the competency-based curriculum in other countries informed the need to transform the objective-based summative evaluation System named the 8-4-4 System to the contemporary CBC curriculum. In the year 2015, the competency-based curriculum was tried in Rwanda. The aim was to eliminate the scarcity of skills in the Rwandan education system by ensuring that information technology was incorporated in the eventual production of human resources. The need for the implementation of the CBC in Rwanda was to ensure that the overall society was not only knowledgeable but also competent. This meant that Rwanda could export their human capital to the global market and meet the global demands of human resources in various sectors based on the individuals churned out from the education system (King-McKenzie, 2017). Therefore, full implementation of the CBC meant that focus would be accorded to ICT, which was considered a vital instrument in facilitating the transformation of the education system and gaining traction towards a knowledge-based society. The framework in Rwanda was also pegged on realizing implementation with the scope targeting the year 2030. The government of Rwanda realized that it was prudent to develop the skills and relevant competencies through a transformation of the education philosophy. The cognitive perceptions and attitudes of the individuals from the education system would have changed, meaning that the society will also be innovatively transformed. Nevertheless, the idea of a competency-based curriculum has the sole purpose of the individual or the students attaining optimal potential through the relevant skills gained in the program.

In the Republic of Tanzania, the competency-based curriculum was implemented earlier, in the year 2005 with the aim of solving challenges in the training institutions (Tilya & Mafumiko, 2010). The previous education curriculum had centred on objective and summative evaluation without necessarily considering skills that would also be needed in institutions of higher learning. Among the challenges faced, were that teaching methods were not compatible with the curriculum developers' vision of the competency-based curriculum. Additionally publishers and book writers failed to attain a consensus on the implementation of the programme meaning that bridging the gap between the primary levels of education and the institutions of higher learning was significantly hampered.

One other nation that sought to implement the competency-based curriculum was Mexico. The reforms were initiated in the year 2009 by altering the education policies at the national levels to ensure knowledge skills, values and attitudes were embedded in the learners at an initial stage of learning. Competency in this context was viewed based on the application of values and skills coupled with attitude towards the education curriculum. On the other hand, the East African Community (EAC) through its secretariat determined to harmonise the curriculum

frameworks of the East African nations to be competency-based. This harmonisation plan was informed by the contemporary trends in the global human resource market. The EAC is confident that the CBC is one of the ways in which the member states governments can empower their populace through skills and knowledge, critical in their national development hence contributing to the success of the East African Community as the leading source of human capital in various sectors.

The commitment to improve Kenyans education has been based on a series of reforms that have been undertaken since independence in 1963. The philosophy of education and the curriculum of the Republic of Kenya started from the Africanisation of the national goals that were embedded in the country right after Kenya attained self-rule. This foundation led to the revision of the national objectives which also changed the education agendas and policies relating to the education sector. These elements were occasioned by the government in 1976. The education sector gained traction towards a change in curriculum in 1985 through the establishment of a working party that will then be used until the year 1988. Quality education and training was first implemented following the Koech report of 1999. It is from these deliberations in the Koech Commission that the focus on innovation was rooted in the education policies in Kenya. There is a dearth of literature and research done by education reform commissions that have aided in the improvement of the education curriculum, the philosophy and design coupled with the overall objectives of the education curriculum in Kenya. One such reform Commission is the Ominde Commission (The Ominde Report, 1964). Although some of the propositions by the Ominde Commission were then overhauled by other commissions such as the Gachathi Commission of 1976, it is prudent to note that the Commission set a foundation for implementation of free primary education and overall national development of education infrastructure that will be fuelled by innovation. Other notable reports in the curriculum transformation are; Kamunge Commission (The Kamunge Report, 1988) and Koech Commission (The Koech Report, 1999) (Eshiwani, 1993; Amutabi, 2003).

## **2.0 Literature Review**

### **2.1 Teachers' use of ICT in the Implementation of CBC in Kenya**

The focus of the innovation facet using the ICT infrastructure strains on the Public schools. In this context, the government has significantly invested in the ICT infrastructure despite the lack of empirical evidence that implementation of the activity programs to enhance innovation in the schools has been viable. These elements notwithstanding, it is essential to note that the global innovation index of 2019 conducted by the world intellectual property organization ranks Kenya, Mauritius, and South Africa as the leading innovation hubs in Sub-Saharan Africa. There is therefore a need to explore the information technology opportunities and infrastructure in these nations to ensure that the delivery of education is also aided by ICT.

Kenya is at a vantage point because the education system is in line with Kenya's development blueprint of vision 2030 that is highly informed by innovation frameworks. The vision for the education sector in Kenya as per the Vision 2030 is that Kenya should have a globally competitive quality education, research and training to guarantee sustainable development. It is also in tandem with the mission for the education sector in Kenya, whose aim is to provide, coordinate and promote the provision of quality education, research for empowerment training of individuals to become not only responsible and competent citizens but also to ensure a lifelong education process that will in turn aid society in attaining its goals optimally (Murithi & Yoo, 2021). These are the main factors that have gained grip towards the CBC curriculum from the 8-4-4 System. The vision of the basic education curriculum reforms is to ensure that learners are equipped with world-class standards in terms of skills needed to thrive in the human capital markets in the 21<sup>st</sup> century. One of the focuses in the ICT department is to ensure

competency-based skills are imparted in the schools through digital literacy (KICD, 2017). It is also meant to ensure the optimal integration of ICT in the curriculum by harnessing infrastructure capacity.

There has been previous research pointing to the lapses in the integration of technology and innovation in the education curriculum. A case in point is a study conducted by “Karsenti et al. (2012) in over ten schools around Kenya. Various factors were identified as hindrances to the pedagogical integration of ICT. Some of these factors included: lack of ICT devices, the perception of ICT by teachers as time-consuming and as an additional workload, technophobia by older teachers, and teachers’ inadequate ICT expertise among others. To address some of the issues, the Jubilee Government had a plan in 2013 to integrate ICT in education by providing laptops to all class one pupils (Muinde & Mbataru, 2019). According to Wanzala and Nyamai (2018), by July 2018 19,000 out of 23,951 public primary schools had been provided with technology devices but only 70,000 out of over 300,000 teachers had been trained just months to the roll-out of CBC.

The implementation of the CBC cannot be optimally effected if the human capital in the teachers Service Commission cannot fully embrace ICT in their teaching. It has been revealed that teachers in the public institutions experienced significant challenges in teaching using ICT devices (Murithi & Yoo, 2021). The factor has been significantly contributed to by the lack of digital literacy among the teachers expected to implement the competency-based curriculum. There is a need for the Ministry of Education to analyse the infrastructure available in schools for the effective integration of technology in teaching and learning. Additionally, focus should be placed on the perceptions of the teachers, and their ability to operate ICT in the teaching and learning process.

## **2.2 Strategic Management**

Strategic management is essential in the attainment of the objects of the competence-based curriculum. The Ministry of Education is tasked with the formulation and evaluation of frameworks that will be incorporated in the primary schools in the next decade. It is essential for the ministry to enlarge the strategic planning of the competence-based curriculum to incorporate all the stakeholders. Strategic planning in this context will involve all critical components including but not limited to the human capital, physical and practical resources and the ability of both schools and management to meet objectives. It is noteworthy that strategic management goes beyond planning. The roll-out of the CBC curriculum is not only dependent on policy perspective but also the practical ‘rubber-meets-the-road’ aspects of implementation, most of which are already captured herein.

## **2.3 Infrastructure Challenges in the Implementation of the CBC**

The human capital, as a critical component in the education sector, should be a key consideration when implementing a new curriculum. Staffing decisions should also mirror strategic management efforts by the government to buttress the roll out and full implementation of the curriculum. It is prudent to note that the Ministry of Education in Kenya ensures that there is optimal support and capacity for basic education. Kenya has been plagued with systemic challenges in the education sector. After the launch of free primary education by the Mwai Kibaki government, there was an influx of learners into schools. This welcome development was however not matched with an increase in schools infrastructure. The number and sizes of classrooms did not grow at the same level as school populations and so did the number of teachers.

Conversely, overcrowding in the classrooms coupled with the shortage of teachers means that there is an imbalanced teacher to learner ratio, which is essential when tackling innovation and

other critical subjects in the competency-based curriculum. According to the universal basic education standards, the preferred teacher-learner ratio should be one teacher representing 40 students or pupils. There have also been efforts to reduce the teacher to learner ratio to one teacher serving little under 30 learners. Because the competency-based curriculum involves initiatives to study the skills and knowledge development of the pupil, human capital is critical in ensuring each learner is given adequate attention if the CBC is to succeed at all. Insights can be attained from the education curriculum in Uganda to determine how the learner to teacher ratio can aid in the implementation of an education curriculum. A field-based study to investigate the matric curriculum, showed that although teachers in the country were enthusiastic about the new curriculum there was significant concern about how large the classes were in terms of the number of pupils in the nation to the number of teachers available. The same cry could be heard of the teachers in Kenya, immediately the CBC was rolled out and they were tasked with implementing it. The teachers were already struggling with effectively discharging the 8-4-4 system as they were spread out thin.

At the same time there have been initiatives by the Kenyan government through the national education sector plan, amended in 2013 to 2018 with the aim of reducing overcrowding in the classrooms. The elements of overcrowding in the public schools were first experienced by the transition to free primary education, with the government lacking an effective strategic plan for infrastructure to cater to the influx in students (KICD, 2016). Additionally, following the needs assessment for the competency-based curriculum at the primary level, it was also found that there was inadequate infrastructure creating the high occurrence of the imbalance teacher-learner ratios which hindered effective delivery of the curriculum. An imbalanced teacher-learner ratio means that the learners cannot be optimally assessed on both the non-cognitive and cognitive competencies. Some of the reasons for the occurrence of these dynamics can be pegged on inadequate funding, and the inability of the education ministry to meet the rapid quantitative expansion of education at the primary level, all of which will be addressed shortly.

### **2.3 ICT Integration in Education System in Kenya**

ICT in Kenya has been incorporated in the education policies in Kenya. The value of ICT in Kenya's education and in the new computed based curriculum is also in line with development blueprint of the vision 2030 (Murithi & Yoo, 2021). The government should therefore ensure strategic management and planning of resources and ideas to channel ICT infrastructures to primary schools if there is to be a possibility of the optimal implementation of the CBC curriculum. Curriculum reforms such as the competency-based curriculum should also be in line with the digital literacy skills that should be impacted in the teachers Service Commission and other training programmes to both the older and the younger teachers. Therefore to support optimal implementation of ICT in the competency-based curriculum, there is a need for younger professionals in the teaching sector to be trained in the Computer literacy programmes. Additionally, the older teachers should also be trained using in-service programmes to ensure that there is integration of ICT that will propel the identification and development of innovation in the classrooms. The vitality of the training is because Computer literacy and technology has been integrated in various subjects in the primary school setting. It is a move by the competency-based curriculum to ensure that it goes in tandem with the trends of the global marketplace human resource expectations. Teacher capacity and teacher perceptions will also be included in the analysis of the general skills and effective planning of the implementation of the competency-based curriculum.

### **2.4 The Status of ICT Infrastructure in Schools**

Since innovation is pegged on ICT in the competency-based curriculum, facilities and infrastructure should be intended with the number of students in the classroom in mind, to

create an environment where basic facilities can be shared equally or effectively. A study by Langat in 2015 revealed that there are significantly ICT equipment shortages in primary schools in Kenya, meaning that the competency-based curriculum will also have the inherited challenges of the lack of infrastructure from the previous education curriculum (Langat, 2015). Based on these dynamics, statistics have shown that 90% of schools have no adequate ICT equipment (Mwadulo & Odoyo, 2020). One of the most pressing challenges is the shortage of classrooms, especially with the focus being on the public schools in which most of the pupils in the competency-based curriculum are enrolled. The basic exit equipment such as tablets and computers in primary schools lack digital customization in classroom settings. The government of Kenya should be alive to the idea that setting up of infrastructure or procurement of computers and tablets and other necessary technology should also be in tandem with the customization of the devices to meet the level of the pupils at the lower primary levels in the competency-based curriculum. The effectiveness of the implementation of innovation in the competency-based curriculum will be dependent on the customization of the content disseminated to the learners. The education philosophy curriculum design should be harnessed and guided by the cognitive perceptions of the teachers who are supposed to be teaching the competency-based curriculum. The element of teacher capacity for ICT integration depends on the digital literacy of the teachers. The studies that depict the competency and the capacity of teachers to implement the ICT programmes in Kenya agree that there is a need for policy formulation and significant financial investment by the government to ensure integration of technology in the Kenyan classrooms. Lack of effective planning saw little in-service training when the use of technology was incorporated in the community based curriculum. Strategic management should also focus on teacher perceptions during training. A cross-sectional survey of data among headteachers and teachers in the country showed that the number of teachers trained by the government was significantly low.

## **2.5 The Availability of Instruction Material**

To enrich the learning environment, educators and stakeholders should ensure that the curriculum is equipped to adapt to the evolutionary and responsive approaches to curriculum changes. Therefore there should be a significant investment in the schools infrastructure improvements such as laboratories, libraries computer centres, potable water, electricity, toilets, furniture and most importantly, the classrooms. It is prudent to note that marginalisation in terms of infrastructure in the nation has been a thorn in the side of education for decades now. Equity in the spread of resources even in the education sector has often been informed by political considerations. Infrastructural tooling at the county level is yet to meet the equity requirement under the Constitution of Kenya. Infrastructure in public schools is still wanting. Learners and teachers alike lack even basic new curriculum textbooks and other innovative gadgets that are to be used in the competency based curriculum. It is noteworthy that this is an inherited challenge, and one that the CBC cannot solely carry. The lack of textbooks and other instructional material will significantly impede the optimal implementation of the competency-based curriculum. Curriculum materials are indispensable in the learning and teaching process. It therefore means that the channel of communication in the classroom can also be significantly altered, and effective learning and teaching will be also hampered. A case in point is the study of Nyandarua North Sub-county within the Republic of Kenya. In this relatable case, the ministry of education had supplied curriculum designs and distributed them to schools, but the learners had not received textbooks, and the teachers had not received enough guidelines for the implementation of the computer-based curriculum (Waweru 2018). Therefore cognitive competency, coupled with the non-cognitive competencies will not be optimally obtained. It will be a dent in the implementation of the competency-based curriculum whose key deliverable is triggering cognitive competences to ensure the identification of skills that can be

used in furthering individual careers (M'mboga Akala, 2021). The lack of instructional resources can be attributed to underfunding and the rapid quantitative expansion of education. The CBC was rapidly implemented by the education ministry with at best unrealistic timeframes, which in turn find their pressures on the political front. The government should therefore train focus on the instructional resources and focus less on the rapid attainment of implementation schedules that do not match the strategic management capabilities of both the education ministry and the Teachers Service Commission.

Ultimately since the focus is on strategic management and innovation in the competency-based curriculum, ICT integration is vital. A study by Ondimu revealed that instructional infrastructure is also in tandem with the dissemination of ICT programmes in schools (Ondimu 2018). Instructional resources are essential for providing Technical Support to the learners and teachers in the implementation of CBC. In addressing these challenges, the government should also ensure that it follows through with the national education sector plan (NESP, 2013-2018), which was intended to identify and correct infrastructure challenges in the Kenyan education sector. The regression analysis based on the availability of the instructional material for the core activities of CBC is vital. The relationship between strategic management and the infrastructure challenges of the competency-based curriculum can be attained from the independent variables of the experience of the teacher, the age school category, the grid, and the number of learners in their primary school.

## **2.6 Human Resource Challenges in Strategic Management and Implementation of CBC**

There is need for the Ministry of Education and the Teachers Service Commission to channel out training programmes that are learner-centered. In this context, the government rolled out the competency-based curriculum with prime focus pegged on their pupils, but teacher training was not given significant focus. One such reference of lapses in the implementation of the competency-based curriculum can be attained from the Chinese education reforms that were implemented from 2001 to 2008 (Jin and Li, 2011). The revelations from China were that the curriculum was post modernised meaning that while it was learner-centered, training of the teachers to implement the curriculum was greatly negated. The education stakeholders and the teachers careers should be enhanced in a procedural manner (Bagozzi, 2016). Emphasis should be placed on improving receptiveness of the training requirements to meet the dynamics in the social-economic society. The learner's skill development and cognitive development in the competency-based curriculum should be in tandem with the proper training given to the teachers implementing the curriculum. There is need for integrated learning experiences from a teachers perspective so that they can effectively transfer the learning outcomes to raise an individual's skill set. This in turn is integral in the teacher's professional success and social integration of the learner in Society. Cases where even teachers themselves failed to understand the educational material disseminated to be implemented in the CBC are not rare.

There has also been a rather popular phenomenon where learners are expected to carry out tasks with their parents. If teachers, the main cog in the education sector, have a flinging understanding of the curriculum, how is a parent, juggling between an 8 to 5 job, able to navigate the CBC deliverables? In dispensing education, teachers who fail to communicate well cannot also teach well. Strategic training should also focus on the evaluation of communication between teachers and students. Well trained teachers will also effectively use teaching material appropriately to ensure optimal outcomes in the implementation of the competency-based curriculum. Research has shown that teachers have been hesitant to use CBC materials and textbooks because of the length required to draw lesson plans (Mosha 2015). The government through the Ministry of Education should as a matter of urgency, increase infrastructure and resource used in in-service training in the ongoing professional

development of teachers. The in-service training is vital both in rational decision making and also ensuring that teachers can audit the materials used in the dissemination of information to grow the skills of the learners. In the primary school sector in Kenya, there have been in-service training programmes that have been implemented, although the fraction of teachers picking up the competency-based curriculum training is low compared to the learner teacher ratio needed to optimally implement the competency-based curriculum.

It is also prudent to note that pre-service teachers have failed to use methods outlined in the teaching programmes for the classrooms in the CBC curriculum. These are aspects impeding the innovation and optimal implementation of the competency based curriculum because teachers have resorted to using the traditional teacher-centered methods despite the ministry of education's and the Teacher's Service Commissions efforts to overhaul the System. The main reason for the continued use of the conventional teacher centred methods can be paired with the teachers attitudes and cognitive perceptions towards the receptiveness of the CBC in the Primary school level. To enhance optimal levels of innovation in the education sector and identification of innovation among the learners, teachers should also prepare well for lessons and have a firm grasp of what outcomes the materials intend. Lack of opportunities from the in-service refresher courses will also impede learner growth. Teachers should therefore be offered mandatory refresher courses to enhance and update their knowledge periodically. The enhancement should also go in tandem with the curriculum developers' vision and research findings to try to curb the loopholes that prevent optimal implementation of the competency-based curriculum. The Teachers Service Commission has already issued directives on these mandatory refresher courses but this has already met public resistance because of the centres accredited to offer the courses together with attendant costs.

## **2.7 Teacher Training Programs, Policies, and Quality Assurance**

Various strategic management aspects were identified by previous education committees and which have not been optimally handled by both the ministry of education and the stakeholders in the education sector. The government of Kenya in 2014 affirmed the pre-service training issues among teachers at the primary school level. These pre-service training issues included the lack of a clear national policy that guided teacher education, development and deployment. Additionally, there was need to reform the teacher education curriculum at every level of training to ensure that emerging teacher training needs such as the incorporation of digital literacy, numeracy, early grade literacy, and the pedagogy in cross-cutting themes such as gender sensitivity, were addressed. Conversely, these are aspects that can be critical in addressing the limited pedagogical skills which can upgrade the capacity building of the teacher trainers. There is need to harmonise the entry requirement to be in tandem with the duration of the teacher training at all levels of training by the stakeholders. The trained teachers equipped with ICT knowledge will not only be critical in the assessment and evaluation of the curriculum but also in the grading of the students depending on their identified skills, attitudes, and competencies. A lack of funds for teacher education and development is also one of the critical leads to the loopholes in the strategic management of the competency-based curriculum. On the other hand there is inadequate supervision rendered to the teacher training curriculum. The insufficient auditing and supervision means that there is little information regarding what ought to be upgraded in terms of needs, creating a stagnation or the use of a rigid training curriculum. This heavily reflected in the dissemination of information to the learners and whether there is both consistency and uniformity will be achieved. The age old and Constitutional question of equity comes to the fore. Harmonization through the creation of a national INSET Policy to guide the stakeholders, and the teachers will be essential in the implementation of good practices while also enhancing incorporation of ICT integration in the training and education to equip teachers with realistic technology and innovation skills to properly teach and assess



learners. The success of teachers in implementing the CBC will therefore be determined by the quality of training and education they get. There should be a paradigm shift in terms of the conceptualization of the innate abilities of the teachers hence the need to also study the cognitive perceptions and attitudes of the teachers towards training. Addressing these lapses and loopholes are essential in ensuring that there is optimal strategic management of the CBC.

### **3.0 Research Methodology**

Ultimately the research design ensures that there is a conceptual structure in place that will guide the collection and analysis of the data. In this context, Kothari and Garg found that a good research design will be essential in setting processes and conditions that will give reliable and accurate data collection and analysis (Kothari and Garg, 2014). Conversely, the research design will also determine the selection of participants coupled with a sampling technique to be used. In this case, the participants ranged from 1457 teachers across the different counties in Kenya. Through the implementation of snowballing sampling, it is essential to note that the research sought to include the cognitive perceptions analysis data based on innovation in the CBC curriculum from 35% of the sample size. The small number of teachers is because of the prevailing COVID-19 pandemic restrictions where the target population of teachers being considered as respondent is significantly limited. The research design was also influenced by previous research on ICT integration and their focus on innovation in Kenya. Nevertheless, this research seeks to incorporate a focus on strategic management and innovation in the CBC curriculum of both non-urban teachers and urban area teachers. Focus is also placed on the public schools because it has a more significant number of pupils and rolled compared to the lesser amount absorbed by the private sector. The study therefore targeted school head teachers and class teachers who are critical in the implementation of the CBC. The vitality of using surveys as a strategy for the collection of data is essential because it has been used to have effective is as in a deductive approach when cutting out qualitative and quantitative descriptive designs of data analysis.

Prime focus was accorded to grade one grade two and grade 3 which will be essential in the initial implementation of the CBC by the educators. The head teachers are critical in the population sampling because they are administrators who are tasked with the responsibility of managing and supervising school activities, thereby having the optimal responsibility to ensure that the competency-based curriculum has and now human capital and resources to be rolled out. The sampling design was also informed by the research instruments of data analysis. Therefore the study and research incorporated a pilot study to ascertain the content validity of the instrument. Pre-testing of the instruments was therefore critical in ensuring that it will pass the tests in the different sub-counties outside the Nairobi area. Additionally, to ensure the authenticity and reliability of information, the respondents were selected from the experienced teachers and also teachers who handled schools which have an imbalance in the learner teacher ratio. The question is given to the respondents had specific questions that would accommodate relevant feedback to determine the findings of innovation in strategic management in the implementation of the competency-based curriculum. These elements noted standing the findings would be critical in the identification of loopholes challenges and positive aspects that can be enhanced to advance the quality of the competency-based curriculum both on the stakeholder level and the dissemination of information to the pupil the classroom sector in the different counties in Kenya. It is also prudent to note that different counties in Kenya have diverse needs depending on the level of development and its geographical environmental conditions facing each county. A case in point is that of Laikipia County which is regarded as a semi-arid area.

Ultimately the sampling design was pegged on the sampling frame and the techniques that would be used in the determination of the sample size. Therefore the study significantly incorporated descriptive surveys best for the target population of the teachers selected. Additionally, a percentage of the teachers emanated from the private sector schools although a majority was sourced from the public schools. The sampling frame in this context is the list of elements in the sample population from which data will be drawn from. The studies target population was there for primary schools head teachers from areas considered as urban and counties that have been clustered as urban areas. The list of schools was authenticated by the Ministry of Education and the county Department of Education of the counties visited. Findings Of the research determined that 95.7% of the teachers had attended at least a week's training in a whole term. Nevertheless, the training was not replicated in the lesson planning and the delivery of the curriculum since audits of the lesson plans showed critical aspects of the competency-based curriculum missing.

### **5.0 Conclusion and Recommendations**

The Ministry of Education and the Teachers Service Commission should ensure that the learner-teacher ratio is addressed for optimal implementation of the competency-based curriculum. A ration of at least 1:35 is the stepping stone to ensuring optimal rations and education deliverables. It will be an improvement on the UNESCO recommendations on reasonable ratios in public schools. To ensure effective and optimal implementation, there is a need to enhance learning materials and the equipment that will match the increased human capital. Auditing and enhancing the instructional material used in teaching the competency-based curriculum is pivotal. Since the curriculum is learner-centered, the need to increase and even match equipment and facilities to learner/student populations cannot be underscored enough.

This paper recommends that Human resource challenges in the competency-based curriculum be addressed as a matter of urgency. Strategic training and deployment of teachers is the key to unlocking the implementation clog within the CBC matrix. Focus should be placed on the quality of teaching rendered in the primary school setting as this is the incubation period for any curriculum. The teacher's prerequisite skills should also be based on competitive training modules, which will, in turn, be reflected in the auditing frameworks by the Ministry of Education. The audits should as a matter of necessity, be frequent, ideally on termly basis to determine the training gaps and identify the comprehensive targets that need addressing for optimal competency-based curriculum implementation.

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