

## **Institutional Preparedness in Implementation of Competency Based Curriculum in Primary Schools in Kenya in the Midst of COVID-19 Pandemic**

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### **Abstract**

*Curriculum reform is usually a planned order which all stakeholders affected become part of the process by making their contribution to operationalize the curriculum as designed and developed. The purpose of the study was to investigate the level preparedness of school resources for the implementation of the competency-based curriculum during COVID-19 pandemic in primary schools in Wareng Sub-County, Uasin-Gishu County, Kenya. The study examined the level of availability of material resource for the implementation of the Competency Based Curriculum during COVID-19 crisis. It also investigated the physical resources availability for the implementation of the Competency Based Curriculum during COVID-19 crisis in primary schools. The study was guided by curriculum implementation theory by Gross. The study adopted survey research design. The target population was 120 head teachers and 220 grade 1-3 teachers from 120 primary schools. Stratified sampling was used to group schools into private and public schools, 21 public schools were selected and 15 private schools. Purposive sampling was then used to select 36 head teachers from the sampled 36 schools, 66 teachers were selected randomly from those of early year grades. Data was collected using questionnaires and interview schedules. The data was analyzed using descriptive statistics and thematic analysis. The study revealed that teaching and learning resources were available but inadequate for all learners during COVID-19 crisis. Moreover, the study found out that physical resources needed renovations, expansion and equipping of rooms for implementation of the curriculum during COVID-19 crisis. The study therefore recommends that the government to provide adequate teaching and learning materials in all schools for curriculum implementation during COVID-19 crisis. Furthermore, physical resources such as classrooms should be renovated to fit learning standards, more classrooms to be built and be equipped adequately to overcome challenges caused by COVID-19 crisis..*

**Key words:** *CBC implementation, material resources, COVID-19 crisis*

## **Introduction**

Competency is described as an established aptitude that refers to proficiency, understanding and individual abilities in a varied study or work circumstances (Lurie, Mooney & Lyness, 2011). Furthermore, Competency involves several attributes such as knowledge, skills, attitude, tasks, ethics and values. Deakin (2008) alludes that competence is a complex combination of knowledge, skills, understanding, value attitudes and desire which leads to effective, embodied human action in the world, in a particular domain.

Every child is required to attain abilities and temperament needed to succeed in the 21st century (Best, Floyd & Mcnamara, 2008). Kenya has not been left behind on revising the working of the education curriculum to achieve this shared goal. The Kenya Institute of Curriculum Development, for instance, plans and executes curriculum changes as a strategy to change Kenya's education.

This new curriculum focuses on a change from focus of content to proficiency and stresses tutoring instead of schooling. Tutors should not be teaching simply to complete the syllabus, but rather to pass all-round commensurate knowledge (Lurie, Mooney & Lyness, 2009).

The Competency Based Curriculum (CBC) is founded on the need to transform school leavers with familiarity, proficiency, and creativity valuable for resolving societal and economic challenges of current society (Serdenciuc, 2013; Paulo & Tilya, 2014). The competency-based curriculum (CBC) seeks to expand learners' ability to identify suitable skills and knowledge to productively carry out a duty (KICD, 2017). It highlights the relevance of skills and facts to daily life conditions. The agenda of the CBC spreads across the borders of Kenya. In 2013, the East African community settled on placing a common curriculum structure that will change the aim from the standard curriculum design to the competency-based curriculum and one that measures up with the global trends.

### **Teaching and Learning Resources for Implementation of the Curriculum**

Learning is a challenging process that consists of relations between students' incentives, physical services, teaching resources and skills on training and program commands (Lyons, 2012). According to DFID (2007), sufficiency of educational materials, such as textbooks as the key learning material, is the most cost-effective input affecting student performance. Additionally, competency of teaching and learning resources determines educational systems' competence (Padmanabhan, 2001).

For effective education, textbooks and supply materials are basic tools; therefore, their shortage makes trainers tackle subjects in a theoretical manner, rendering it dry and non-effective. Past research indicates that resources are not always accessible in learning institutions (Mackatiani, Imbovah, Imbovah & Gukungai, 2016). This insufficiency of educational resources has been of severe distress to managers. Resources aid in advancing access and instructive results since students are less likely to be absent from schools and offer them interesting, meaningful and significant experiences. These resources should be offered in quality and quantity in schools for successful teaching and learning processes.

Several researches have been done on the effects of educational materials on learning. Momoh, (2010) investigated on the effects of learning resources on students' results in West African School Certificate Examinations (WASCE). The accomplishment of learners in WASCE was connected to the resources accessible for learning. He summarized that material resources have an essential impact of learners' goals since they ease the education of abstract ideas and reduces rote-education. Where teaching/Learning resources are not enough learning is cooperated and this unavoidably is revealed in low academic attainment, elevated dropout rates, challenges behaviors', poor teacher inspiration and unmet instructional goals. Igwe (2015) asserts that curriculum materials are essential in the teaching-learning process but regrets that lack of the instructional materials in most Nigerian secondary schools has made teachers use talk and chalk.

Sitienei (2020) did a study on school based factors influencing implementation of competency Based Curriculum in public primary schools. The study found out that Learners share textbooks when given class assignments. This implies that learning materials were not adequate. Teacher-pupil ratio was high and therefore was hindering the implementation of CBC Curriculum. This also implies that Covid-19 spread is high because of sharing teaching/learning materials.

A study by Jidamva (2012) on learning materials used to deliver the competency-based curriculum disclosed that most schools do not have enough services and teachers had not received adequate training, which makes the classroom execution of the CBC program difficult. This study further revealed that teachers lacked prerequisite competencies and the textbooks and teachers guide had not been provided.

For the formally intended program to be totally executed as per the plan, the Ministry of Education in Kenya should deliver institutions with sufficient supply of materials like textbooks, learning aids and stationery so as to make sure trainers and students take their responsibilities adequately in the syllabus execution procedures. The ministry of education endorsed core textbooks to communal primary and secondary instructive organization since January 2018. The project expansion goal is to advance student education in secondary learning and change from primary to secondary learning.

### **Physical Resources for Curriculum Implementation**

Physical resources in education is a broad term that embraces the capital, equipment, personnel and time that goes to make a learning environment (Barasa, 2007; Cohen, 2007). The Ministry of education, science and technology (MOEST, 2005) describes the essence of making sure that there are sufficient and suitable physical equipment for instruction and education so that the curriculum could be executed appropriately. A classroom is a place in which learning activities occurs. Classrooms are found in learning institutions of all types, consisting of public and private institutions, companies, and spiritual and humanitarian institutions (Cohen, 2007). In program execution (University of Zimbabwe, 1995: 2), it is recommended that the main administration should also offer physical requirements like classes, laboratories, workshops, libraries and sports fields so as to generate a surrounding in which execution can occur. The accessibility and value of resource material have a great effect on curriculum execution.

According to Barasa, (2007), the classes try to offer a secure space where education can happen without interruption or distractions. Most classes have big writing areas where the teacher or learners can share ideas with other student of the class. Sitienei (2020) agrees that there is need to build more classrooms in order to reduce congestion of learners in one classroom.

Another significant resource is the library which is the compilation of resources, physical sources, and the organization in which it is domiciled. In a more customary sense, a library is a compilation of manuscripts (Barasa, 2007). It can be described as the compilation itself, the building that houses collections, or both. The word library has attained a secondary definition; a compilation of significant material for general use.

## **Statement of the Problem**

The MOE through Kenya Institute of Curriculum (KICD) in Kenya are putting measures of implementation of the competency-based curriculum since its launch in 2017 (UNESCO-IBE, 2017). In 2016, USAID through the ministry of education improved its support for the system of education change to competency-based curriculum by providing some level of funding to aid syllabus development process with production of instructional materials. Various workshops were conducted through this grant to actualize the curriculum and some materials (books) produced (UNESCO-IBE, 2017). Later, the curriculum was rolled out for piloting from pre-primary one to grade two. One year later, external reports emerged revealing that there were gaps that needed to be addressed.

Furthermore, various studies have been done on implementation of Competency Based Curriculum. Sitienei (2020) did a study on School Based factors influencing implementation of competency Based Curriculum in public primary schools, Kibra sub county in Kenya. Komba and Mwandaji (2016) did a study on Reflections on the Implementation of Competence –Based curriculum in Tanzania Secondary Schools. Makunja (2015), on the other hand, did a study on Adopting Competence-Based Curriculum to improve quality of secondary education in Kenya “is it a dream or reality?” Owala (2021) did a study on Successes and challenges of implementing the competency based curriculum in Kenya.

A letter by Kenya National Union of Teachers (KNUT) addressed to the Cabinet Secretary of Education in 2017 feared that the new system was speedily completed, lacking suitable designs, pupils’ books and trainers were ill prepared (Daily Nation, 27th Dec. 2017). Since the preceding discussions it is obvious that there was need to investigate schools level of resource availability for the implementation of the competency-based curriculum during COVID-19 in Wareng Sub-County, Uasin-Gishu County in Kenya.

## **Objectives of the Study**

The objectives of the research were to;

- a). Examine the level of material resource availability for the implementation of the Competency Based Curriculum during COVID-19 crisis.
- b). Investigate the physical resources availability for the implementation of the Competency Based Curriculum during COVID-19 crisis in primary schools.

## **Methodology**

The research covered primary schools in Wareng sub-county in Uasin-Gishu County in Kenya. The study adopted survey research design. The target population was 120 head teachers and 220 grade 1-3 teachers from 120 primary schools. Stratified sampling was used to group schools into private and public schools, 21 public schools were selected and 15 private schools. Purposive sampling was then used to select 36 head teachers from the sampled 36 schools, 66 teachers were selected randomly from those of early year grades.

This study applied questionnaires, semi-structured interview schedules and observation checklist. The researcher used questionnaires to collect data from grade 1-4 teachers to establish the availability of material and physical resources for learning.

Semi-structured interview was used to clarify themes in the survey study. The interviews schedule was used to obtain the necessary and detailed qualitative data from the head teachers. The observation checklist was used to gather data and verify information on the availability of resources that was obtained through the questionnaires and interview schedules.

## **Findings**

### **Material Resources Provided for the Implementation of Competency Based Curriculum in the Midst of COVID-19 Pandemic**

The first objective sought to investigate the resources available in schools in the midst of COVID-19 Pandemic. To achieve this objective respondents were asked to indicate the extent to which teaching learning materials are available in their classes during COVID-19 pandemic. Table 1 presents the study results.

Table 1 shows that 20(33.9%) of the respondents indicated that resources for teaching mathematics activities were not available and majority at 39(66.1%) of the respondents indicated that they were available and not adequate. Furthermore, 2(3.4%) of the respondents indicated that materials for teaching Literacy Activities were not available, 19(32.2%) indicated that materials were available and not adequate and 38 (64.4%) indicated that they were available and adequate.

Furthermore, 2(3.4%) of the respondents indicated that resources for teaching Kiswahili Activities were not available, 19(32.2%) indicated that they were available and not adequate and 38(64.4%) indicated that they were available and adequate.

Another 25(42.4%) of the respondents indicated that Environmental Activities were not available and 34(57.6%) indicated that they were available. Also,

3(5.1%) of the respondents indicated that materials for teaching English activities were not available, 19(32.2%) indicated that they were available and not adequate and 37(62.7%) indicated that they were available and adequate. This implies that majority of the schools had adequate textbooks while others had textbooks but were inadequate. Mosha (2012) argues that there is need for enough textbooks and reading materials. In his study, he cited that there was acute shortage of text books in schools. Furthermore, teacher support materials are essential to ensure new curriculum is well implemented.

Further, 9(15.3%) of the respondents indicated that Creative arts Activities teaching materials were not available, 28(47.5%) indicated that they were available and not adequate and 22(37.3%) indicated that they were available and adequate. Furthermore, 1(1.7%) of the respondents indicated that materials for teaching Christian/ IRE Activities were not available, 22(37.3%) indicated that they were available and not adequate and 36(61.0%) indicated that they were available and adequate. Moreover, 9(15.3%) of the respondents indicated that materials for teaching Music Activities were not available, 34(57.6%) indicated that they were available and not adequate and 16(27.1%) indicated that they were available and adequate. The above implies that the materials for teaching were available and not adequate. This is in agreement with the study by Sitienei (2020) who recommended that the government should ensure adequate provision of instructional materials such as textbooks for effective implementation of CBC. The study found out that majority of head teachers agreed that they didn't have enough text books for implementation of CBC.

Table 1  
*Status of Availability of Teaching Materials*

		Not Available	Available and not Adequate	Available and Adequate	Total	Mean	Std. Dev
<b>Mathematics Activities</b>	F	20	39	0	59	2.66	.47
	%	33.9	66.1	0.0	100.0		
<b>Literacy Activities</b>	F	2	19	38	59	2.61	.55
	%	3.4	32.2	64.4	100.0		
<b>Kiswahili Activities</b>	F	2	19	38	59	2.61	.55
	%	3.4	32.2	64.4	100.0		
<b>Environmental Activities</b>	F	25	34	0	59	2.57	.49
	%	42.4	57.6	0.0	100.0		
<b>English Activities</b>	F	3	19	37	59	2.57	.59
	%	5.1	32.2	62.7	100.0		
<b>Creative Arts Activities</b>	F	9	28	22	59	2.22	.69
	%	15.3	47.5	37.3	100.0		
<b>Music Activities</b>	F	1	22	36	59	2.59	.52
	%	1.7	37.3	61.0	100.0		
<b>Home Science Activities</b>	F	9	34	16	59	2.11	.64
	%	15.3	57.6	27.1	100.0		
<b>Digital Devices</b>	F	17	21	21	59	2.06	.80
	%	28.8	35.6	35.6	100.0		
<b>Digital Devices</b>	F	24	21	14	59	1.83	.79
	%	40.7	35.6	23.7	100.0		
<b>Hand Books</b>	F	22	11	26	59	2.06	.907
	%	37.3	18.6	44.1	100.0		
<b>Teachers Guide</b>	F	4	14	41	59	2.62	.61
	%	6.8	23.7	69.5	100		



Further, 17(28.8%) of the respondents indicated that resources for teaching home science activities were not available, 21(35.6%) indicated that they were available and not adequate and 21(35.6%) indicated that they were available and adequate. Furthermore, 24(40.7%) of the respondents indicated that Digital devices were not available, 21(35.6%) indicated that they were available and not adequate and 14(23.7%) indicated that they were available and adequate. Moreover, 22(37.3%) of the respondents indicated that Hand books were not available, 11(18.6%) indicated that they were available and not adequate and 26(44.1%) indicated that they were available and adequate. Finally, 4(6.8%) of the respondents indicated that teachers guide were not available, 14(23.7%) indicated that they were available and not adequate and 41(69.5%) indicated that they were available and adequate.

The study results on adequacy of learning materials show that majority of respondents argued that materials were available but not adequate. This implies that pupils share learning materials and it is likely to increase the spread of COVID-19 among them and hence likely to spread to their parents and teachers. Furthermore, WHO asserts that children under the age of 18years represent 8.5% reported cases with relatively fewer deaths compared to other age groups. The children can spread COVID-19 to their teachers who are elderly.

The findings concur with Momoh (2010) who conducted a research on the effects of instructional resources on students' performance in West African School Certificate Examinations (WASCE). He found out that material resources had a significant effect of students' achievements since they facilitate the learning of abstract concepts and ideas and discourage rote-learning.

### **State of the Available Physical Resources**

The second objective sought to investigate the state of the available physical resources for teaching in the midst of COVID-19 pandemic. The respondents were asked to indicate the state of availability of physical resources in their schools in the midst of COVID-19 pandemic. Table 1.4 presents the findings.

Table 2 shows the state of the available physical resources. Respondents were asked about the availability of classrooms, 3(5.1%) of the respondents indicated that the resources were not available, 16(27.1%) indicated that the resources were available but they do not need renovation, 17(28.8%) indicated that the resources were available and not equipped and 23(39%) of the respondents indicated that the resources were available and equipped. Ministry of education requires 35-40 pupils per class and now majority of the urban schools have up to 80 pupils per class.

This hinders free movement of the teacher in the classroom and also puts them at a risk of contracting COVID-19. One of the interviewed respondent asserted that pupils are too many in a class and it is difficult to move from one point to another to assist the pupils. She further said that since CBC requires a lot of practicals during learning, the sharing of materials among learners created more risk of the spread of the disease.

Furthermore, on laboratory physical resources the results shows that 52(88.1%) of the respondents indicated that the resources were not available, 3(5.1%) indicated that the resources were available but they do not need renovation, 2(3.4%) indicated that the resources were available and not equipped and 2(3.4%) of the respondents indicated that the resources were available and equipped. This implies that physical resources were not available and therefore not easy for teaching and learning to take place. One of the interviewed respondents argued that World Health Organization protocols require that policies should be put in place to ensure children are safe in schools. Furthermore, school infrastructure should be enough to allow physical distancing. WHO further asserts that Physical distancing of at least one meter between individuals including spacing of desks should be implemented in schools where learning is taking place.

Table 2

*State of the Available Physical Resources*

Availability of physical Resources	Not Available		Available but Needs Renovation		Available and not Equipped		Available and Equipped		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Classrooms	3	5.1	16	27.1	17	28.8	23	39.0	59	100.0
Laboratories	52	88.1	3	5.1	2	3.4	2	3.4	59	100.0
Workshop	52	88.1	1	1.7	3	5.1	3	5.1	59	100.0
Library	14	23.7	14	23.7	18	30.5	13	22.0	59	100.0
Sports field	24	40.7	20	33.9	11	18.6	4	6.8	59	100.0

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

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

Lastly on availability of sport field physical resources the data shows that 24(40.7%) of the respondents indicated that the resources were not available, 20(33.9%) indicated that the resources were available but they do not need renovation, 11(18.6%) indicated that the resources were available and not equipped and 4(6.8%) of the respondents indicated that the resources were available and equipped.

The head teachers cited similar challenges they faced in implementing the CBC during COVID 19 pandemic. They noted that: “Teachers were not well prepared, there is problem on availability and adequacy of teaching materials, the engagement between teachers and parents is low which has affected the implementation of CBC. The implementation of CBC requires the participation of all stakeholders.”

This gave an implication that the resources and infrastructure required for learning and assessment in the CBC approach which are completely different from those in use in the former education system are non-existent or inadequate. Moreover, parents and other stakeholders have not been involved in the reform process nor have public awareness campaigns been conducted following the roll-out of CBC and the spread of COVID-19 pandemic.

### **Conclusion**

The study revealed that teaching and learning resources such as textbooks were available but inadequate for all learners during COVID-19 crisis. This implied sharing the limited resources by the pupils leading to likely spread of Covid-19 to teachers and parents. Moreover, physical resources need renovations, expansion and equipping of rooms for implementation of the curriculum during COVID-19 crisis.

### **Recommendations**

The study therefore recommends that the government provides adequate teaching and learning materials in all schools for curriculum implementation during COVID-19 crisis.

Furthermore, physical resources such as classrooms should be renovated to fit learning standards, more classrooms to be built and be equipped adequately to overcome challenges caused by COVID-19 crisis.

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