

# Constraints Facing Successful Implementation of the Competency-Based Curriculum in Kenya

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**Abstract** Kenya is in the process of shifting from content-based to competency-based system of education. Teachers are likely to face challenges when implementing a new curriculum especially in relation to the content and subject demarcations, the underlying assumptions, goals, teaching approaches and assessment methods. In this regard, this study was conducted to investigate the constraints likely to face successful implementation of the competency based curriculum in Machakos County, Kenya. The study adopted a descriptive survey design targeting all the 8,320 teachers in all the 828 public primary schools in Machakos County, Kenya. Stratified random sampling was used to select 342 teachers in charge of grades one to three where competency based curriculum was being implemented. A questionnaire and an observation checklist were used as tools for data collection. The study established that teachers were not fully prepared for the implementation of new curriculum; infrastructures available in schools were not adequate for successful implementation of competency based curriculum; the government hurriedly implemented CBC in schools without first addressing challenges such as understaffing, inadequacy of teaching and learning material and unfriendly teaching and learning environment. The study recommends that the Ministry of Education should invest more on teacher training and involve teachers in curriculum change process to create a positive attitude among them for successful implementation of Competency Based Curriculum.

**Keywords:** *competency-based curriculum, teacher training, curriculum implementation*

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## 1. Introduction

Curriculum is the medium through which nations around the world empower the general public with the values, knowledge, skills and attitudes that are necessary for them to be economically and socially engaged, in order to attain national and personal development [1]. Curriculum development is usually necessitated by the desire to respond to change, and as such any quality curriculum development is a continuous and on-going process. A good curriculum needs to align with global trends of rapid expansion of knowledge, broadening information and communication technologies, and the resultant constant change in the skills needed by learners to fit in the job market [2]. Currently, the world is experiencing a shift to competency-based education [3].

In Kenya, a major curriculum reform was experienced in 1985, when the 8-4-4 system of education was introduced as a response to recommendations by the Presidential Working Party on the Establishment of the Second University in Kenya [4]. The 8-4-4 system was mainly guided by a philosophy of self-reliance. Since

then, various formative and summative reviews and task-force reports gave rise to reviews of the national curriculum in 1992, 1995 and 2002 [5]. The culmination of this curriculum review process was the adoption by the Kenya Institute of Curriculum Development (KICD) of a competence based curriculum approach in the reforms.

In the Kenyan context, competence-based education is considered as one where emphasis is placed on what a learner is expected *to do* as opposed to what the learner is expected *to know*. Competency-based curriculum is therefore learner-centred, with a lot of emphasis on the changing needs of learners, educators, and the society at large. The implication of this is that the curriculum accords learners an opportunity for acquisition and application of knowledge, skills, attitudes and values to day-to-day problem solving while placing emphasis on 21<sup>st</sup> century skills [5].

With the introduction of competency-based curriculum, the country is shifting from an 8-4-4 structure to a 2-6-3-3-3 structure – pre-primary (2 years); primary (6 years); and secondary education (6 years). This newly introduced Competency-Based Curriculum puts emphasis on seven core competences, namely: i) communication and collaboration, ii) creativity and imagination, iii)

critical thinking and problem solving, iv) digital literacy, v) citizenship; vi) learning to learn, and vii) self-efficacy. The implementation of competency-based curriculum is being done in phases beginning with pre-primary and lower primary classes, which started implementation in January 2018.

When a new curriculum is being implemented, there is need for regular evaluations as a process of gathering and using information to detect problems and modify implementation strategies [6]. Implementation of a new curriculum is expected to be faced with challenges. As pointed out by Shiundu and Omulando [7], curriculum development is a process that follows a number of stages, including conducting a situational analysis, formulating the objectives, setting up of the curriculum project, building the program, piloting the new programme in selected schools, improving the new programme, implementation, evaluation, and maintenance. This study sought to establish the constraints likely to be experienced during the implementation of the Competency-Based Curriculum in Kenya, with specific focus on Machakos County. The objectives of the study were to:

- (i) Establish the teacher factors affecting the implementation of the competency based curriculum in Kenya;
- (ii) Determine the effects of available infrastructure on the implementation of the competency based curriculum in Kenya;
- (iii) Find out the effects of government policy on the implementation of the competency based curriculum in Kenya.

The study was necessitated by a growing concern by education stakeholders in the country over the delayed implementation of the competency based curriculum. The curriculum is anchored on the national goals of education and is designed to ensure provision of opportunities for the identification of talents and the potential brought by learners to schools and nurture such talents and potential through pathways and provided tracks.

## 2. Method

### 2.1. Research Design

The study adopted a descriptive survey design, which is a strategy of gathering data by distributing research instruments to a study sample [8]. Descriptive design was considered relevant to this study since the researcher only reported the situation facing the implementation of the competency-based curriculum in Machakos County without active manipulation of study variables.

### 2.2. Target Population and Sample Size

The target population for the study was all the 8,320 teachers in all the 828 public primary schools in Machakos County, which is one of the 47 Counties in Kenya. Stratified random sampling method was used to select 342 teachers in charge of grades one to three where competency based curriculum was being implemented.

### 2.3. Data Collection Tool

Data for this study was collected in the months of September and October 2018. A researcher-made questionnaire and an observation checklist were used as tools for data collection. The use of a questionnaire for data collection was chosen because using this instrument, it is possible to gather large amounts of data within a considerably short amount of time. According to Kothari [9], the questionnaire is the most common tool used for purposes of data collection. The questionnaire contained 22 items that were measured using a 5-point Likert scale ranging from 1 to 5 with 1 representing strongly disagree, 2 denoting disagree, 3 undecided, 4 agree and 5 strongly agree.

### 2.4. Reliability and Validity

Before carrying out the actual study, a pilot study was carried out in 5 primary schools with similar characteristics to the targeted population, but which were not involved in the final study. The pilot study enabled the researcher to establish the reliability of the questionnaire, which gave a Cronbach's alpha value of 0.714, indicating that the questionnaire was reliable for academic research. The questionnaire was constructed in close consultation with two research experts teaching in a Kenyan public university, whose expert guidance helped to improve validity of the instruments. This is in line with Kimberlin and Winterstein [10], who note that validity is established by expert judgment.

### 2.5. Data Analysis

Once all the data are collected from the field, the data was cleaned in order to improve on accuracy and completeness of the data set. The next step was data coding, which was done prior to computer data entry for analysis using the Statistical Package for Social Sciences (SPSS) Version 20. Data collected from the field was quantitative in nature, and was therefore analyzed using descriptive statistics such as frequency counts, means and standard deviations.

## 3. Results and Discussion

### 3.1 Teacher Factors Affecting the Implementation of the Competency Based Curriculum

In order to establish the teacher factors affecting the implementation of the competency based curriculum, a 5-point Likert scale comprising of 10 items measuring teachers' knowledge on CBC was used. The study participants were required to indicate their level of agreement or disagreement in each item on the scale. The scale ranged from 1 to 5 with 1 representing strongly disagree, 2 denoting disagree, 3 undecided, 4 agree and 5 strongly agree. The midpoint of the scale was a score of 3, with scores above 3 denoting that respondents agreed with the item on the scale while score below 3 signified that teachers disagreed with the item on the scale.

Table 1 shows teachers' responses on their knowledge on CBE.

**Table 1. Teachers' responses on their knowledge on CBE**

Knowledge on CBE	Mean	Std. Dev.
I am able to judge if students have achieved the learning outcomes of CBE.	4.13	.750
More research on CBE is needed before it can be implemented successfully.	4.05	.858
In the CBE teacher training I have received, clear guidelines were given as to how students can be transformed from passive to active learners.	3.60	1.277
I am confused by the new terminology of CBE.	3.50	1.024
I find it difficult to adapt my teaching style to a child's individual learning style.	3.11	1.091
I feel well prepared for CBE.	2.94	1.362
My knowledge of CBE is good.	2.22	.999
My knowledge of the assessment techniques for CBE is good.	2.20	1.067
I have received adequate training on CBE.	1.91	1.048
I do not understand the principle of continuous assessment.	1.78	.894
<b>Average score</b>	<b>2.96</b>	<b>.279</b>

The mean scores obtained by the teachers on their knowledge on CBE ranged from 1.78 to 4.13 with an average score of 2.96. The highest scored statements were "I will be able to judge if students have achieved the learning outcomes of CBE (4.13)" and "more research on CBE is needed before it can be implemented successfully (4.05)". The lowest ranked statements were "I do not understand the principle of continuous assessment (1.78)" and "I have received adequate training on CBE (1.91)". These findings show that majority of the teachers confirmed that they were not well prepared for the implementation of new the curriculum. A significant number of them noted that they were still confused by the new terminologies of CBE. They felt that it was still difficult to adapt their teaching styles to a child's individual learning style, and that the training they had received, knowledge on CBE, and assessment techniques was inadequate. These findings agree with those of Nyoni [11], whose study in the neighboring Tanzania revealed that most of teachers were not provided with in-service training as a strategy to improve their teaching-learning techniques and hence most of them were still employing old approaches or traditional-learning-methods. In another study in Tanzania, Komba and Mwandanji [12] established that majority (86%) of the teachers did not have a proper understanding of the Competency-Based Curriculum nor were they knowledgeable about the objectives of the program. These results are further supported by Hakielimu [13] whose study established that the paradigm shift program in schools had always been poorly implemented, as the majority of teachers did not understand the requirements of the program.

### 3.2. Adequacy of Infrastructure and the Implementation of Competency Based Curriculum

The study sought to determine the effects of available infrastructure on the implementation of the competency

based curriculum in Machakos County. Table 2 shows the means and standard deviations obtained.

**Table 2. Infrastructure for effective implementation of CBE**

School infrastructure	Mean	Std Dev.
The provision of resources is essential if CBE is to succeed	4.59	.493
The large classes in the Kenyan schools will hinder a successful implementation of CBE	4.12	.818
The implementation of CBE will fail if more teachers are not posted to Kenyan schools	4.59	.492
My school is yet to receive all the necessary learning resources for CBE	4.39	.488
The textbooks available in my school are adequate to effectively implement CBE	1.43	.496
The textbooks provided for CBE are of low quality	2.25	.927
The school has adequate laboratories for effective implementation of CBE	1.15	.360
<b>Average score</b>	<b>3.22</b>	<b>.238</b>

Table 2 illustrates the mean scores obtained by the teachers on the effects of infrastructure for effective implementation of competency based curriculum. The mean scores by the teachers ranged from 1.15 to 4.59 with an average score of 3.22. The highly ranked statements by the teachers were "provision of resources is essential if CBE is to succeed (4.59)" and "implementation of CBE will fail if more teachers are not posted to Kenyan schools (4.59)." The lowest ranked statements were "school has adequate laboratories for effective implementation of CBE (1.15)" and "textbooks available in my school are adequate to effectively implement CBE (1.43)". From the study findings, it emerged that most of the sampled schools lacked adequate school infrastructure needed for successful implementation of competency based curriculum. The major challenges experienced in most schools were large classes of pupils, inadequate teachers, inadequate textbooks, laboratories and other learning materials.

The researcher further carried out observations in the sample schools to assess the adequacy of facilities and resources. It was noted that in most schools, textbooks, teachers, desks and sanitation facilities were not adequate as compared to the number of pupils. These results agree with Kavindi [14] who revealed that the major challenges facing implementation of CBE included; shortage of teacher educators, overcrowded classes, inadequate teaching and learning resources and short time for teaching practice. Similarly, Kahera [15] established that under-staffing in the schools, lack of in-service training for teachers, uneven distribution of teachers in the schools, lack of support from parents and the local community on issues related to curriculum implementation, inadequate teaching and learning facilities and infrastructure were the major factors affecting curriculum implementation. In another study, Nyoni [11] found out that lack of teaching and learning materials was one of the major challenges facing teachers during the implementation of competence based curriculum.

### 3.3. Government Policy and Implementation of the Competency-Based Curriculum

The third objective of the study was to find out the effects of government policy on the implementation of

the competency based curriculum. Table 3 presents the findings based on responses from teachers.

**Table 3. Effects of government policy on the implementation of CBC**

Government policy	Mean	Std Dev.
For CBE to succeed, government should create a school communication system to aid smooth implementation of the new curriculum	4.29	.663
Government should post more teachers to schools for CBE to be successful	4.85	.354
CBE was hurriedly implemented by the government before the necessary resources were put in schools	4.58	.494
The ministry of education does not have a monitoring and evaluation framework to track the progress in implementation of CBE	3.09	1.343
The amount of money disbursed by government to schools is enough to facilitate effective implementation of CBE	1.71	.719
<b>Average score</b>	<b>3.7</b>	<b>.0279</b>

Results presented in Table 3 shows that mean scores and standard deviations obtained by teachers on aspects measuring effects of government policy on the implementation of CBC ranged from 1.71 to 4.85 with an average score of 3.7. The highly scored statement by the teachers was "Government should post more teachers to schools for CBE to be successful (4.85)." On the other hand, majority of the teachers lowly ranked the statement that "amount of money disbursed by government to schools is enough to facilitate effective implementation of CBE" (M=1.71). Based on the analysis of the findings, it emerged that the money disbursed in the schools by the government was not enough for the implementation of CBC, the programme was hurriedly implemented, there were no enough teachers in schools to ensure successful implementation of CBC and there were no established channels of communication in school to aid in the implementation of new curriculum. In contrast to these findings, a study in Nigeria by Odey and Opoh [16] found out that the main challenges facing curriculum implementation included lack of a curriculum implementation monitoring strategy, government failure to offer training to teachers on curriculum implementation strategies, learners craving for success in examinations at all costs even without working hard, lack of motivation among tutors, and failure by tutors to focus on teaching responsibilities as they spend more time on scholarly research.

## 4. Conclusions

This study sought to establish the constraints likely to be experienced during the implementation of the Competency-Based Curriculum in Kenya. Based on the findings of the study, the following conclusions were made:

- i. Teachers as one of the key curriculum implementers were not fully prepared for the implementation of new curriculum. Some teachers felt that it was still difficult to adapt their teaching style to a child's individual learning style. This means that some

teachers were rigid to change from content based curriculum to competency based curriculum.

- ii. Infrastructures available in schools were not adequate for successful implementation of competency based curriculum. Most schools had a problem of understaffing despite having large classes of pupils. Teaching and learning materials available in the schools were not adequate as compared to the number of pupils, there were no laboratories, among others.
- iii. The government hurriedly implemented CBC in schools without first addressing challenges such as understaffing, inadequacy of teaching and learning material and unfriendly teaching and learning environment. Also, the government did not first establish effective channels of communication. These as a consequence have a negative impact on the implementation of CBC in public schools in Machakos County.

## 5. Recommendations of the Study

From the conclusions presented above, the following recommendations are made:

- i. Teachers should be fully prepared for the implementation of competency based curriculum through in-service training, seminars and workshops.
- ii. The Kenya Institute for the Curriculum Development should highly involve teachers in curriculum change process to create a positive attitude among them for successful implementation of Competency Based Curriculum.
- iii. The government through ministry of education should ensure timely disbursement of the funds in the schools.
- iv. The government through ministry of education should ensure that the education officers are frequently reviewing and monitoring progress of CBC in all schools.
- v. The government through the ministry of education should ensure that all schools have adequate infrastructures, that is employ more teachers, provide adequate teaching and learning materials, support schools in construction of more classrooms, laboratories; among others.
- vi. The Ministry of Education should organize campaigns to sensitize parents and other schools stakeholders on their roles in ensuring proper and successful implementation of CBC.

## List of Abbreviations

- CBC:** Competency-Based Curriculum  
**KICD:** Kenya Institute of Curriculum Development  
**CBE:** Competency-Based Education

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