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RESEARCH ARTICLE

INFLUENCE OF TEACHER TECHNICAL SKILLS ON THE IMPLEMENTATION OF COMPETENCY BASED CURRICULUM IN PUBLIC PRIMARY SCHOOLS IN KENYA: A CASE STUDY OF RANGWE SUB – COUNTY

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ABSTRACT

Competency based curriculum is a planned learning experiences in terms of knowledge, skills and attitudes based on the objectives a system of education. Competence based curriculum emphasizes learning outcomes in terms of knowledge, skills and attitudes to be applied by learners to their benefit and the society at large. It is a departure from the traditional curriculum that emphasizes achievement of the objectives of a system of education that prioritize subject content. Successful Competence Based Curriculum (CBC) implementation must be cognizant of various teacher factors that are most likely to influence it. In 2013, partner states in the East African Community agreed to put in place a harmonized curriculum framework which is competency-based and one that matches global trends. The Competence Based Curriculum was rolled out in Kenya in January 2017 and is currently being implemented in lower primary schools in phases from grade one to four. As at the end of 2018, eighty nine thousand teachers of the total 160, 000 teachers of lower primary imparting basic education in Kenya had been inducted on the Competence Based Curriculum. Teachers are the implementers of the curriculum hence they play a significant role in developing and transforming learners. Rangwe Sub County was facing low primary to secondary school transition rates. Recent statistics indicated that 52% of pupils sitting Kenya Certificate of Primary Education every year score less than 250 marks. The pupils are left disoriented and demoralized causing some to either drop out or repeat as per the 8-4-4 curriculum. With the CBC in place all learners have a chance to develop their competencies and skills for nation building. It is against this back drop that the current study sought to establish teacher factors influencing implementation of Competence Based Curriculum in Public Primary schools. The objective of the study specifically was to determine the extent to which teacher's technical skills influence the implementation of CBC in public primary schools. The findings were that teacher technical skills accounted for 12.4% of the variation in implementation of CBC as signified by the coefficient 0.124. Teacher technical skills were found to influence the implementation of CBC more than any other factors and thus the study recommended that efforts should be made to ensure that teachers have technical skills in CBC in order to enable the pupils also to develop a liking towards the contents of CBC. The findings of this study will be significant to stakeholders in education as it will inform policy making and amendment.

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INTRODUCTION

Competency Based Curriculum was introduced in the United States in the 1960s in reaction to concerns that learners did not have life skills needed after school and, therefore, were social misfits (Barrick, 2017). It was felt that they needed a curriculum that imparted knowledge, skills and attitudes that built broad competencies to solve everyday problems. The application of knowledge and skills includes collecting, analyzing, Organizing and synthesizing information, communicating effectively, working with others in teams, using mathematical and scientific inquiry techniques, pursuing creativity, innovation and problem-solving. The Competency Based Curriculum has since spread its wings around the globe and has withstood tests. Countries around the world have since carried out extensive curriculum reforms to better prepare learners for the higher education demands and job market requirements in the 21st Century (Chu, Reynolds, Tavares, Notari & Lee, 2017). In 2013, partner states in the East African Community agreed to put in place a harmonized curriculum framework which is competency-based and one that matches global trends. This is because a curriculum is perceived as the means through which a country empowers its people with the essential values, knowledge, attitudes and skills that will allow them to be empowered for individual and national development (IBE-UNESCO, 2017).

The competency-based curriculum is education that seeks to develop in learners the ability to apply appropriate skills and knowledge to successfully perform a function (Kenya Institute of Curriculum Development, 2016). The curriculum emphasizes on the application of skills and knowledge to real life situations. Mosha (2012), states that a competency-based curriculum is one that has specific outcome statements that outline the competencies to be developed or attained. Competency is defined as proven ability to apply skills, knowledge and personal abilities in different study or work situations (Nikolov, Sholkova & Kovatcheva, 2014). Tuning Educational Structures in Europe defines competences as a dynamic combination of knowledge, understanding, skills and abilities. Competences are obtained or developed during the process of learning by the student. A distinction can be made between generic competences (i.e. transferable competences across study areas) and subject-specific competences (i.e. competences specific to a subject area). In Mexico for instance, the implementation of competence-based approach curriculum kicked off in 2009 via a number of reforms and changes on basic education and national education policies in which competence was viewed as the employment of skills, knowledge, values and attitudes (Malone & Supri, 2012). The competency-based approach main agenda was stimulating students in order to attain optimum academic performance. The skills, values, attitudes and knowledge were to be applied in daily activities and learners were expected to reflect them on their practical life endeavors. The Republic of Rwanda in an effort to deal with scarcity in skills in the Rwandan education system with emphasis on science and technology adopted the Competency Based Curriculum in 2015 (Ndiokubwayo & Habiaryemye, 2018). This was called for due to Rwanda's desire to build up a knowledgeable society in order to meet its global and local demands in the job market. This was in response to Rwanda's education philosophy of ensuring that every child at all levels of learning receives quality education to nurture their full potential and relevant skills, knowledge

and desired attitudes that will help them fit in the society and job market. Rwanda's objective is to transform its state by the year 2030 into a knowledge-based society and middle-income country. It considers Information Communication Technology, a critical instrument in facilitating the transformation. Tanzania introduced the competency-based curriculum in 2005 to tackle the challenges facing preparation of learners in training institutions that inhibit the quality of education (Paulo, 2014). According to Komba and Kira (2015), the graduates who were the products of the old curriculum did not exhibit the competencies and skills that wholly matched the global job market demands locally, regionally and internationally. Therefore, the competency-based curriculum was intended to raise the quality of education in Tanzania and produce learners who could demonstrate and apply the acquired skills, attitudes and knowledge in problem solving in meeting the changing needs and aspirations of the society. However, five years later after the implementation of the competency based curriculum in Tanzania, a study carried by Tilya and Mafumiko (2010) on the compatibility between the Competence Based Curriculum and teaching methods in Tanzania found out that curriculum developers, book writers and teachers lacked clarity on the implementation of the competency based curriculum as they had not fully grasped the meaning of the competency based curriculum.

The Government of Kenya in January 2011 initiated a review of the national curriculum in order to originate a curriculum that would sufficiently address and resonate with the needs and aspirations of the Kenyans and equip the children with knowledge, appropriate attitudes and skills that will help them fit and compete internationally (Njeru & Itegi, 2018). A research report on the need's assessment for curriculum reform by Kenya Institute of Curriculum Development affirmed the necessity for a primary school curriculum that integrates and equips individuals with competences and skills applicable in real life situations locally and globally. It added that curriculum needed to prioritize vocational education and practical subjects (Koskei & Chepchumba, 2020). Consequently, it recommended that for effective curriculum delivery and provision of quality education, teacher capacity building, provision of learning resources and teacher training in all areas either through pre-service and in-service is fundamental. The new curriculum was aimed at creating pathways to domicile talents (Koskei & Chepchumba, 2020).

The Kenyan new curriculum reforms are aimed at nurturing every learner's potential and creating an avenue for identifying, nurturing and developing the learners' talents through the learning tracks and pathways which will be provided at senior secondary (Ondimu, 2018). Based on the needs assessment study carried out by Kenya Institute of Curriculum Development and the vision and mission of the Basic Education Curriculum Framework, there are seven competencies to be developed and they include self-efficacy, citizenship, creativity and imagination, critical thinking and problem solving, communication and collaboration, learning to learn and digital literacy. Basic education is structured into three levels; early years' education, middle school education and senior school (Waiganjo & Mwangi, 2018). According to the Daily Nation (2017, January 22nd), The new Competence Based Curriculum was rolled out in January 2017 and is being implemented in lower primary school and has been rolled out in phases from Grade One to Four currently.

The technical skills of a teacher contribute greatly to what learners learn and affects the process of learning in schools. Buchmann (1984) points out the innumerable duty of guiding learners during the teaching process like deciding which knowledge is worthwhile, organizing learning activities, asking productive questions, giving relevant explanations and assessing learners learning all rely on the teacher's level of comprehension of what is it that learners are to be taught. In the same light, Jadama (2014) contends that how much the teacher knows and understands the subject matter defines how well teachers can teach the curriculum content to the learners. Clarification of misconceptions of knowledge to the learners largely depends on teacher's comprehension of the subject matter through which learning is affected. This means that the implementation of a new curriculum as the faces a great task if the teacher's technical skills are questionable and therefore must be looked into in order pave way for a successful implementation.

SYNTHESIS OF LITERATURE ON TEACHER TECHNICAL SKILLS AND IMPLEMENTATION OF THE COMPETENCE BASED CURRICULUM:

The subject of teachers' technical competence is the expertise that they acquire through academic as well as further training they endeavor to acquire with the intention of making themselves better in their task to implement the curriculum. It may thus be understood to mean knowledge that they bring with them when they enter the classrooms and thereafter and is an important subject under scrutiny. Teacher proficiency and technical competence are vital quality components with regard to curriculum implementation and may include their academic as well as professional grades, subject matter, certification and coursework as (Ferguson & Hellen, 1996) reveal. Teacher quality is a significant concern towards the implementation of curriculum (Wilson, 2001) be it in lower or upper levels of education i.e. pre-schools, primary and secondary level. To some extent, teacher qualifications are effective at identifying teachers who improve the achievement of children. Some teacher qualifications are consistently associated with increased student achievement in particular subject areas.

According to Koskei (2013), teachers should be qualified in order for effective curriculum implementation to take place. Literature on teacher qualification in more developed countries such as Germany, Netherlands and Finland reveal that pre-school centers do not suffer from shortage of educated teachers. This is because the governments in these countries have heavily invested in teacher training at their own expense. As such, the teachers in these countries are capable of implementing the curriculum in pre-school settings. These findings are prescriptive on what needs to be determined by future researchers in their efforts of linking the influence of teacher technical skills to various aspects. This study therefore, sought to establish the technical skills level of teachers with regards to the implementation of Competency Based Curriculum. Manduku, Gichaba, and Koech (2013) conducted a descriptive survey design study on challenges facing the implementation of early childhood development education in Kericho Country, Kenya with the purpose of analysing of availability of the instructional resources and challenges facing Early Childhood Development Education centers in Kenya. The research was based on the theory of curriculum innovations. The study used simple random and stratified sampling techniques to select respondents who comprised of a target population of 84 head teachers and 180 pre-school

teachers to get the sample size of 25 head teachers and 54 pre-school teachers from the selected Early Childhood Development Education centers. The findings of the study revealed that the knowledge and skills of the pre-school teachers made them to be more competent in using the relevant IR. The teacher qualification did have influence in the use of IR in Early Childhood Development Education centers. According to the study the technical skills of teachers are essential when they are to be involved in a new policy implementation. The study only explored the challenges facing implementation of Early Childhood Development Education in Kericho while the current study sought to determine the influence of teacher related factors on Competency Based Curriculum implementation in Rangwe Sub County. Saracho (2010) wrote a paper on teachers' roles in promoting literacy in ECDE centers, assessed the role of kindergarten teachers in order to promote literacy during children's play. The study revealed that; teachers, age, gender, teaching experience were some of the factors that influence implementation of programmes. The paper was based on the Kenyan context and involved Nairobi County. While the study used observation only as a method of data collection, the current study will use both questionnaire and observation checklist for a comprehensive data. This study was also meant to find out the role of teachers in integration of play activities in the entire ECDE curriculum while the current study will try to find out the factors that affect the implementation of Competency Based Curriculum. Lack of proper teacher training adversely affects the implementation of programmes. Teachers who are not trained are not capable of implementing educational programmes. Similarly, effective ECDE implementation requires trained ECDE teachers.

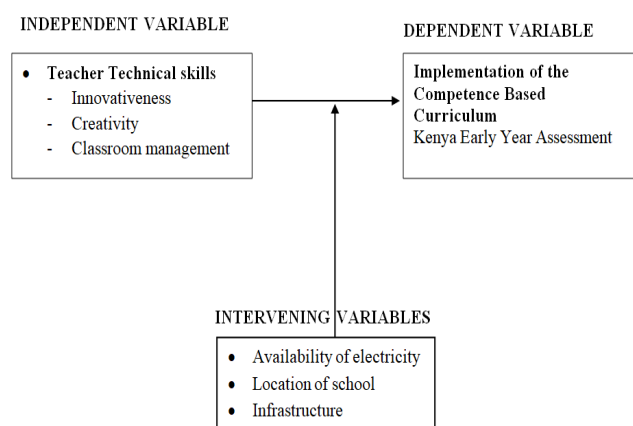
Similarly, Okango (2012) conducted a census sampling study on educational challenges faced by children accompanying their mothers in Thika and Langata prisons. The sample for the study was 24 teachers in both Langata and Thika prisons. Census sampling was used for the study. The findings revealed that 75% of the teachers teaching the young children either had inadequate or no professional training in Early Childhood Education as Master Plan of Education and Training 1992-2010 by Republic of Kenya (1998) shows. Teachers' academic and professional training are key ingredients in the implementation of the curriculum has shown. There is therefore need to find out the teachers technical skills and training status. Moreover, the study reviewed was conducted prior to the implementation of Competence Based Curriculum. There is need to find out the technical skills of the teachers and to further examine whether the teachers technical skills influence the implementation of Competence Based Curriculum.

Research Objective: The research objective was to determine the extent to which teacher's technical skills influence the implementation of Competence Based Curriculum in public primary schools in Rangwe Sub County.

CONCEPTUAL FRAMEWORK

The study was conceptualized on how various teacher related factors interrelate to influence the implementation of competence based curriculum. The conceptual framework represented in Figure 1 shows the relationship between the independent variable (Teacher technical skills) is the Dependent variable (Implementation of competence based

curriculum). The intervening variables are Location of the school and infrastructure.



Source: Author, 2020.

Figure 1. Influence of Teacher Technical Skills on Implementation of Competence Based Curriculum in Schools

This study investigated the extent to which teacher factors influence implementation of the Competence Based Curriculum in Public Primary schools in Kenya. Perception is considered by many researchers as a critical factor in influencing attitude and adaptation to any new change or innovation. If perception and interpretation of an innovation varies on individual basis, they may be considered as contributing factors to an individual's attitudes towards any programme being implemented. Teacher proficiency and technical competence are vital quality components with regard to curriculum implementation and may include their academic as well as professional grades, subject matter, certification and coursework as (Ferguson & Hellen, 1996) reveal. Teacher quality is a significant concern towards the implementation of curriculum (Wilson, 2001) be it in lower or upper levels of education i.e. pre-schools, primary and secondary level. To some extent, teacher qualifications are effective at identifying teachers who improve the achievement of children. Some teacher qualifications are consistently associated with increased student achievement in particular subject areas.

Previous studies suggests that as adults' age and mature they view all new ideas and knowledge through the lens of their own experiences and apply those experiences to make sense of new information. As a teacher continues to teach over a long period of time, he/she acquires more skills through experience. Harris and Sass (2011) cite that all the studies of teacher productivity include some measure of teacher experience which serves as a proxy on-the-job training experience. The dependent variable is the implementation of the teacher technical skills among public primary schools.

Other factors such as family background, social economic status, political stability, learning environment also influence implementation of CBC but the researcher did not see them as crucial in implementation of the Competency Based Curriculum. The intervening variables were school location and infrastructure. Intervening variables are factors that moderate the influence of independent variables on dependent variables by either enhancing or reducing the influence. Random sampling helps to control their effect on dependent variables due to their neutralizing effect, among other methods. In this study, random sampling sufficed.

RESEARCH METHODOLOGY

The study adopted a mixed research method and employed a descriptive survey and correlation research designs. A conceptual framework showing the relationship between teacher factors and implementation of the Competency Based Curriculum guided this study. The population of the study included 105 head teachers, 105 Grade 3 teachers, 4200 Grade 3 learners and 6 Curriculum Support Officers. A sample of 82 Head teachers, 6 Curriculum Support Officers, 82 Grade 3 teachers and 351 Grade 3 learners were involved totaling to 527 respondents. Questionnaires, Observation guides, learner assessment tool and interview guides were used to collect data. Validity of instruments was determined by experts examining instruments and incorporating their inputs. Reliability of instruments was done by piloting in 10 schools (10%). Test-retest method was used to determine reliability whereby Pearson's (r) coefficient of 0.733 at a P-Value of 0.05 was obtained hence reliable. Quantitative data was analysed using frequency counts, percentages, means and regression analysis. Qualitative data was transcribed and analysed in emergent themes and sub themes.

RESULTS

Demographic Information of Grade Three Teachers: The grade three teachers were requested to give information about their gender, age, academic qualification and years of service. The information was as presented in the following sections.

Gender of Grade Three Teachers: The Grade three teachers were requested to state their gender. The responses are as tabulated in Table 1 below.

Table 1. Gender of Grade Three Teachers

Gender	Frequency	Percentage (%)
Male	36	45
Female	44	55
Total	80	100

Table 1 above illustrates that females constitute a higher percentage (55%) in terms of grade three teachers compared to Males (45%). This negatively affects the education of the boy child since there are minimum male teachers to serve as their role models in their early years. This concurs with McDowell and Klattenberg (2019) who notes that the demand for more male teachers has become prevalent in educational discourse and the lack of male 'role models' in schools has an adverse effect on boys' academic motivation and engagement. As such, gender equality should be given the attention it requires when recruiting teachers.

Age of Teachers: The Teachers were requested to indicate their age bracket and the results are as shown in Table 2

Table 2. Age Bracket of Teachers

Age (Years)	Frequency	Percentage (%)
21-25	10	12.5
26-30	10	12.5
31-35	8	10
36-40	8	10
41-45	8	10
46-50	18	22.5
51-55	10	12.5
56-60	8	10
Total	80	100

Majority of the pre-school teachers (22.5%) are between age 46 to 50 years and only (10%) are fifty-six and above years. This means that most of the teachers (77.5%) are below the age of 50 years. Age was important in this study as it is considered to be one of the factors influencing the implementation of the CBC curriculum and is under scrutiny in this study. From the interviews, it was revealed that older teachers preferred teaching lower classes owing to the less burden of work that is there. Also, their carefulness and passion for taking care for the young was noticeable in the interviews as one head teacher, HT013 commented that he receives requests from older teachers to be allocated classes to lower levels.

Teachers' Academic Qualification: The teachers were requested to indicate their highest academic qualification and their responses are as indicated in Table 3 below.

Table 3. Academic Qualification of Teachers

Academic Qualification	Frequency	Percentage (%)
Certificate	42	52.5
Diploma	36	45
B.Ed.	2	2.5
Total	80	100

Table 3 illustrates that majority of the teachers (52.5%) teaching in pre-school classes are Certificate holders and Diploma holders (45%). The level of education is crucial in implementation of the CBC and adopting a new curriculum with efficiency in imparting knowledge to learners. The findings imply that most teachers have meet the minimum requirements to teach in a school. The academic qualification of teachers was essential in this study as it was necessary to determine whether the teachers are adequately qualified to implement the contents of CBC. It was also necessary so as to establish its influence on the implementation of the CBC.

Teachers' Response on Number of Years of Service: The teachers were asked to indicate the number of years they have taught at pre-school level and their responses is as indicated below.

Table 4. Response on Years of Service (Experience)

Years of Service	Frequency	Percentage (%)
1-5	18	22.5
6-10	16	20
11-15	22	27.5
16-20	2	2.5
21-25	10	12.5
26-30	6	7.5
31-35	6	7.5
Total	80	100

From Table 4 above, it can be noted that those who had taught for less than five years were 18, those who had an experience of between 6 and 10 years were 22.5%, between 11 and 15 years 27.5, between 16 and 25 years were 7.5% and those who had an experience of 26 years and above were 7.5%. The data revealed that a greater percentage of grade three teachers had an experience of fifteen years and below in teaching.

Learners' Scores Obtained in the Mathematics Assessment Test: Grade Three learners were subjected to an assessment test to demonstrate their competencies and level of CBC implementation. The questions were marked against the ability

of the learner to score all the 25 questions right. The scores are as tabulated in Table 5 below.

Table 5. Learners' Scores in Mathematics

Learners' score (Marks out of 25)	Frequency	Percentage (%)
1-5	26	7.5
6-10	70	20
11-15	35	25
16-20	61	17.5
21-25	105	30
Total	351	100

Table 5 gives the learners' scores that were obtained from the learner assessment tool. It shows that majority of the learners (30%) scored between 21-25 questions right while only 7.5% of learners scored below 5 questions right. It can be noted that majority of the learners (62.5%) scored above average. This implies a good performance in the competence area tested and consequently an adequate implementation of the CBC. From the performance in the assessment, it can be deduced that the implementation of the CBC was on good track as most learners were found to comprehend the skills incorporated to them in line with the expectations of CBC.

Research Question: The research question responded to was: To what extent do teachers' technical skills influence the implementation of Competency Based Curriculum?

The questions responded to by the respondents were four of which 2 were positive and the other 2 were negative. A Likert scale involving five rating scales as to a very small extent, small extent, moderate extent, great extent and very great extent was used. The positive questions were rated starting with a very great extent as 5 and ending with a very small extent as 1. The negative questions were rated beginning with a very small extent being rated 5 and ending with a very great extent being rated as 1. After responding to all the questions, the total scores of each teacher were divided by 4 in order to rate their technical skills in relation to implementation of CBC. Thereafter, the various teacher technical skills were rated starting with Very low technical skills as 1 and ending with Very High technical skills as 5. The summary of teachers' technical skills ratings is as shown below. From Table 6, it can be observed that grade 3 teacher rated teachers being technically qualified to teach the CBC subjects as influencing CBC implementation to a small extent with a mean rating of 2.4. Also, the grade 3 teachers indicated that the pre-service training equipped teachers with skills to teach CBC subjects and this influenced the implementation of CBC to moderate extent as signified by a mean rating of 2.8. Grade 3 teachers further implied that teachers are not properly qualified on the key CBC competence areas and that this moderately influenced the implementation of CBC as signified by a mean rating of 2.5. Also, grade teachers indicated that the trainings on CBC did not adequately cover the contents of CBC and this moderately influenced the implementation of CBC with a mean rating of 2.63. Generally, teacher's technical skills rated by grade 3 teachers as moderately influencing the implementation of CBC with a mean rating of 2.6. To test whether Teachers' technical skills influences learners score and hence implementation of CBC, teachers' mean rating on technical skills were regressed against Learners' score in the assessment test as shown in Table 7. The results were as shown in Table 7, 8 and 9.

Table 6. Frequency Distribution of Teacher's Response on Technical Skills

Aspect of Teacher Technical Skills		1	2	3	4	5	T	MR
Teachers are technically equipped to teach the CBC subjects.	F	24	22	20	6	8	80	2.4
	%	30	27.5	25	7.5	10	100	
	SC	24	44	60	24	40	192	
The pre-service training competence	F	12	22	28	6	12	40	2.8
	%	15	27.5	35	7.5	15	100	
	SC	12	44	84	24	60	224	
Pedagogical skills on qualified on the key CBC competence areas.	F	30	10	18	14	8	80	2.5
	%	37.5	7.5	22.5	17.5	10	100	
	SC	30	20	54	56	40	90	
The contents of CBC coverage during training .	F	26	12	14	22	6	80	2.63
	%	32.5	15	17.5	27.5	15	100	
	SC	26	24	42	88	30	190	
Overall Mean Rating								2.6

KEY: F=Frequency; MR=Mean Rating; %=Percentage; S=Score CBC – Competency Based Curriculum

Mean Ratings interpretation: 1.00 - 1.44 = Very small extent 1.45 – 2.44 = Small extent 2.45 – 3.44 = Moderate extent 3.45 – 4.44 = Great extent 4.45 – 5.00 = Very great extent

Table 7. Regression Model Showing the Influence of Teacher Technical Skills on CBC Implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.383	.147	.124	5.819	.147	6.523	1	78	.015

Predictors: (Constant) Teacher Technical Skills

Table 8. ANOVA showing the Influence of Teacher Technical Skills on Competence Based Curriculum Implementation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	220.837	1	220.837	6.523	.015
	Residual	1286.538	78	33.856		
	Total	1507.375	79			

a. Dependent Variable : Kenya Early Years Assessment scores

b. Predictors (Constant): Teacher Technical Skills

Table 9. Linear Regression Analysis for Teacher Technical Skills and Implementation of Competence Based Curriculum

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.762	2.473		3.542	.001
	Teacher Technical skills	2.272	.889	.383	2.554	.015

a. Dependent Variable : Kenya Early Years Assessment scores

b. Regression Equation $Y = \beta_0 + \beta_1 X_1$

From Table 7, it can be noted that teacher's technical skills accounted for 12.4% of the variation in Learners scores as signified by the Adjusted R^2 coefficient of .124. This means that the other 87.6% was due to other factors which were not the subject of this study. This means that when a teacher has more technical skills then there can be a variation which is positive in the learners' competence in the subject the teacher is teaching hence successful implementation of Competency Based Curriculum. The results also indicate that teacher technical skills significantly influenced implementation of CBC since the p-value was $<.05$, that is, it was significant at 0.015 and thus there was strong evidence to conclude that teacher perceptions and Competency Based Curriculum implementation are correlated. This also implied that teacher perceptions are a determinant of CBC implementation. In order to confirm whether teacher technical skills were significant predictors of Competence Based Curriculum implementation ANOVA was computed as shown in Table 8. From Table 8, it can be observed that teacher technical skills were significant predictors of Competence Based Curriculum implementation ($F(1, 78) = 6.523, P < 0.05$). This means that teacher technical skills can be relied upon to explain the implementation of

Competence Based Curriculum in schools. Indeed without teacher technical skills the curriculum cannot be implemented at all. This is an indicator that real Competence Based Curriculum is being implemented. In order to establish the actual influence of teacher technical skills on Competence Based Curriculum implementation, linear regression analysis was computed and the results were as shown in Table 9. From Table 9, it can be observed that teacher technical skills had an influence on implementation of Competence Based Curriculum such that for every one unit increase in teacher technical skills, implementation of Competence Based Curriculum improved by 2.272 units Regression Equation $Y = \beta_0 + \beta_1 X_1$ where X is the teacher's technical skills.

DISCUSSION

Head teachers indicated that their teachers did attend the Competence Based Curriculum induction courses though they still had difficulties infusing some subjects and teachers were moderately competent to implement Competence Based Curriculum.

A big challenge to teachers is the method of assessing learners which was new and not comprehensively explained. These findings concur with those of Manduku, Gichaba and Koech (2018) which revealed that the knowledge and skills of the pre-school teachers made them to be more competent in using the relevant Instructional Resources. According to the study the technical skills of teachers are essential when they are to be involved in a new policy implementation. Also Okango (2012) while establishing educational challenges faced by children accompanying their mothers in Thika and Langata prisons revealed that 75% of the teachers teaching the young children either had inadequate or no professional training in Early Childhood Education as Master Plan of Education and Training 1992-2010 by Republic of Kenya (1998) shows. Teachers' academic and professional training are key ingredients in the implementation of curriculum.

Interview findings by head teachers and Curriculum Support Officers indicated that teacher who exhibited more technical skills in terms of attending in-service courses, seminars and workshops were at a better position in implementing CBC. For instance, curriculum support officer noted "Those teachers that did not attend CBC workshops should not be allowed to teach learners the contents of Competency Based Curriculum as they do not have the requisite technical skills. Head teachers also concurred with these finding as one head teacher asserted "For us to succeed as a school, I have to ensure that only teachers who have attended Competence Based Curriculum training are the ones handling my grade 1, 2, 3 and 4. This is because other teachers lack technical skills to infuse values and key competencies like critical thinking and problem solving in their lessons. I will by the end of next year shall have taken all my teachers for such trainings." The findings imply that the more a teacher is equipped with appropriate technical skills, the more effective and efficient it becomes to implement CBC. In this regard, in service trainings should be encouraged especially on the grounds of equipping teachers with skills relevant to Competency Based Curriculum such as Information Communication Technology, creativity and innovation in teaching.

CONCLUSION

Teacher technical skills influenced implementation of competence based curriculum to a great extent. This is because Curriculum based curriculum by its nature is skill based and therefore the teachers were well endowed with skills though they had not been trained in the area but had the skills with the pre-service at teacher straining colleges besides in-service training.

RECOMMENDATIONS

- Ministry of Education and the Teachers Service Commission in conjunction with headteachers of schools should make provision of equipping of teachers with more skills on competence based curriculum.
- Ministry of Education and the Teachers Service Commission in conjunction with headteachers of schools should make provision of training of teachers in the content areas and pedagogical skills for effective and efficient implementation of Competence Based Curriculum.
- Ministry of Education and the Teachers Service Commission in conjunction with headteachers of schools should make provision for teachers to develop positive attitude towards

implementation of Competence based curriculum as a major reform in curriculum development in Kenya.

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