

INFLUENCE OF TEACHER LEVEL OF TRAINING ON THE IMPLEMENTATION OF CBC  
IN PUBLIC SPECIAL SCHOOLS FOR LEARNERS WITH VISUAL IMPAIRMENT IN  
KITUI COUNTY.

**ABSTRACT**

The government of Kenya has put a lot of effort on provision of education for all irrespective of their abilities. Teachers as the key educational implementers have a great role in provision of education. With this regard, the main purpose of this study is to assess how teacher related factors influence the implementation of Competency Based curriculum (CBC) in public special schools for learners with visual impairment in Kitui County. The specific objective of the study was to assess the influence of teacher level of training on the implementation of CBC. This study was guided by curriculum implementation theory by Gross (1971). The study adopted a descriptive survey design and it will target teachers, head-teachers and learners in special schools for learners with visual impairment in Kitui County. Purposive sampling method and simple random sampling technique was used to select the study participants. A sample size of 210 respondents was used, among them 150 learners, 45 teachers and 15 head-teachers. Questionnaires and interview schedules were used for data collection. Focus group discussions was also conducted among the learners with visual impairment with an aim of gathering information on issues related to availability and usage of ICT, teaching methods used by teachers and also learners' perception towards CBC. Descriptive statistics was used for analysis of quantitative data which included mean and standard deviation, results were presented in frequencies and percentages. Statistical Package for Social Sciences version 24.0 was used for data analysis. Key findings of the study were; majority 44.2% of the teachers possessed a diploma in special need education, this revealed that teachers had attained the minimum professional qualification that is required for one to be employed at primary school level in Kenya. Majority 76.7% of teachers indicated that they had not attended any in-service training. Majority 63.33% of the teachers rated themselves as having sufficient ICT integration skills/training to implement CBC. Key conclusions of the study were; that teacher related factors influence implementation of competency-based curriculum. Teachers had sufficient educational levels and vast experience in teaching. Most of teachers were prepared to implement CBC in terms of content knowledge and teaching methods. In addition, teachers held positive perceptions towards implementation of CBC. Key recommendations were; recommended that the Ministry of Education in conjunction with the Kenya Institute of Curriculum Development and Teachers Service Commission should continue training teachers on ICT knowledge and skills that are very critical to implementation of the new curriculum. The Ministry of Education should come up with a schedule of in-service training programmes to ensure continuous professional development of teachers.

**Key words: competency based curriculum, implementation, and teacher level of training, visual impairment**

## **INTRODUCTION**

Curriculum is described by Kabita and Ji (2017) as the ways by which diverse nations throughout the globe empower individuals with the values, knowledge, skills, and attitudes that are necessary for social and economic empowerment. Curriculum development is usually prompted by learners' desire to embrace change, which means that any good curriculum development is a continual and ongoing activity. According to Stabback (2016), a strong curriculum should be aligned with worldwide trends of fast development of knowledge, information, and communication technologies, which learners need to adapt into the labor market.

The Competency Based Curriculum (CBC) is a method of teaching in which all students are given the opportunity to learn at their own speed and demonstrate mastery of the skills required for their chosen area of study (Gruber, 2018). The main objective of competency education is to meet the desires of learners more efficiently by demanding mastery of content and skills rather than assessing learner's knowledge by the amount of time a learner has spent receiving instruction from the teacher (Sturgis, 2017). Additionally, Lewis, Eden, Garber, Rudnick, Santibanez & Tsai (2014) emphasized that competency-based techniques directly address issues of inequity among the learners with various disabilities, those from disadvantaged families, racial, ethnic and linguistic backgrounds. This is achieved by ensuring that all learners meet high expectations which are required for post-secondary educational achievements. With this regard, Frost, Worthen and Gentz (2015) pointed out that successful implementation of CBC will lay more emphasis on competencies that include application and conception of skills and knowledge. The Kenyan government's Ministry of Education (MoE) produced a study in 2017 which found that CBC provides students with the opportunity to acquire and apply 21st century skills, knowledge, attitudes, and values (RoK, 2017). In a competency-based curriculum, Mosha (2012) said that the outcomes that illustrate the skills to be acquired are included in the curriculum. As a result, CBC requires students to show their understanding of the material via regular evaluations and examinations (Scheopner, Brett, Cox and Greller, 2018).

The implementation of competency-based curriculum was first done in most industrialized countries like USA in 1957, Europe in 1980, Australia in 1990 and Mexico in 2009 in the backdrop of declining economic competitiveness due to an insufficiently trained or competent

workforce (Brownie, Thomas & Bahnisch, 2016). In most of developing countries, the CBC was adopted from developed countries and tailored to the country's specific needs (Murarana, Mtshali and Mukamana, 2017). In Africa, for example, CBC was initially implemented in South Africa in 1998 with the purpose of transforming people's mindset and equipping them with marketable skills to deal with 21st century challenges. CBC was introduced in Rwanda in April 2015. The new curriculum has been praised for being less academic and more practical oriented, more skills-based and adapted to the work place and everyday life (Rwanda Education Board (REB), 2015). Learners loved learning in schools where teachers used CBC approaches hence increasing school attendance rate and academic performance. However, obstacles such as lack of teaching and learning resources, lack of parental support, shortage of skilled teachers to apply the program and huge classrooms hampered efficient delivery of the subject content. In 2013, Zambia's education system switched from a knowledge-based curriculum to a skills-based curriculum, in order to prepare students for future difficulties in a fast changing world (Ministry of General Education (MoGE), 2013). The goal was to create self-motivated, life-long learners, self-assured and productive persons, holistic, independent learners with the values, skills and knowledge to excel in school and in life.

When it comes to curriculum development in Kenya, one of the goals of the Kenya Institute of Curriculum Development (KICD) has been to help students improve their abilities in seven key areas: communicative abilities (including teamwork), critical thinking and problem-solving skills, imagination and creativity, and civic engagement (including digital literacy) (KICD, 2017). According to the "task force report issued in 2012, Kenya's education system was re-aligned to the constitution," CBC implementation in Kenya is dependent on this report (Republic of Kenya, 2012). The task force suggested that the country should shift from an 8-4-4 structure to a 2-6-3-3-3 structure of education. The redesigned structure was designed with the goal of ensuring that learners have the knowledge and skills they need to satisfy Vision 2030's human resource goals and achieve a 100% transfer rate from elementary to secondary school. This would decrease wastage by implementing automatic advancement to the junior secondary phase based on the learning of fundamental skills and competencies (literacy, numeracy, and communication skills), as well as an emphasis on early discovery and fostering of individual learners' ability.

Previous research has revealed that every innovation requires changing human behavior and the willingness to embrace change. For example, research by Okenyi (2011) on attaining democratic education in Africa via learner-centered pedagogy found that instructors with a positive attitude are more likely to embrace and implement learner-centered pedagogy successfully, while teachers with a negative attitude are less likely to do so. In a Kenyan study on school-based factors influencing implementation of CBC, Abdiaziz (2019) established that at least half of the teachers from the sampled schools had positive attitude towards CBC. However, majority of the pre-schools teachers had not undergone any training on CBC and their schools lacked teaching resources such as Information Communication Technology (ICT) and audio-visual equipments which are very important for the successful implementation of CBC. According to Okongo, Ngao, Rop & Nyongesa (2015), the amount to which curriculum is applied is determined by the availability and quality of instructional resources such as textbooks, stationery, and teaching aids. As a result, a shortage of teaching and learning resources will have a detrimental impact on CBC adoption in schools.

Between 2016 and 2017, the Kenya Institute of Special Education (KISE) and the Ministry of Education conducted a countrywide study on the educational requirements of children with disabilities and special needs (Kahongeh, 2018). One in every ten Kenyan students has a disability, according to the findings of the research. Some of the most prevalent types of impairments among students are those involving vision, physical or mental health issues, cognitive or linguistic difficulties, and ultimately, deaf or blindness. Kenya's school system was also found to be lacking in assistance for students with disabilities and special needs. As a consequence, while majority of the children with various disabilities were registered and enrolled in schools, their school dropout rates was increasing daily due to lack of support services in most of the learning institutions.

In support of the aforementioned results, Ondimu (2018) performed a survey in Kenya on teachers' readiness for the implementation of CBC and discovered that no curriculum for learners with special needs had been disseminated to schools and no syllabus for mentally challenged learners had been produced. Additionally, according to a report released by the Kenya National Union of Teachers (KNUT) in 2017, the CBC curriculum does not account for the diversity of learners with special needs and these learners require personalized instruction to ensure they

master the content being taught in classrooms (Kenya national union of teachers, 2017). This therefore undermines successful implementation of the new curriculum in both special schools and special units across the country. The proposed study sought to assess whether there are teacher related factors which affect successful implementation of CBC in public special schools for learners with visual impairment particularly in Kitui County.

### **Statement of the Problem**

The government of Kenya has put a lot of effort on provision of education for all irrespective of their abilities. This is because education is a basic human right and an element for social and economic development in the country (Republic of Kenya, 2012). However, various challenges have been a hindrance in realizing the main goal of competency-based curriculum specifically in special schools. For instance, previous studies showed that most of the teachers lacked teaching resources such as optical devices required for learners with visual impairment (Alianda, 2018) and EARCs rarely instituted educational programs for the learners with special needs (Jelagat, 2020). This hindered them from attaining competencies and skills required in today's job market which is the main goal of the new curriculum (2-6-3-3-3). Further, there is scarcity of studies done on teacher related factors affecting the implementation of CBC in public special schools for learners with visual impairment across the country. Learners who do not have a visual impairment learn effortlessly, naturally and incidentally in the environment. However, due to lack of sight, educators are required to employ specialized teaching methods, in teaching, have special training, have the knowledge of the of assistive technology and have the positive attitudes when handling learners with visual impairment. It is therefore against this background, the current study seeks to bridge this gap by assessing the influence of teacher level of training, influence of teacher technological skills, influence of teaching methods and perceptions of the teachers on the implementation of CBC in public special schools for learners with visual impairment particularly in Kitui County.

### **Research objectives**

To assess the influence of teacher level of training on the implementation of CBC in public special schools for learners with visual impairment in Kitui County.

## **LITERATURE REVIEW**

### **Theoretical Literature Review**

## **Curriculum Implementation Theory**

The study was guided by curriculum implementation theory by Gross (1971) cited in Ochieng (2017). According to the theory, elements including teacher competency, clarity, implementers' awareness and capacity, management support, and the attitudes of teachers, students, and stakeholders must all be taken into account for any educational program to be successfully implemented. Gross (1971) adds that the teacher who will carry out the implementation should be capable, knowledgeable about the subject matter, and aware of all the details. According to Gross, implementers may not implement the curriculum efficiently and sufficiently if they are not informed about the proposed modifications to the curriculum. According to Heggart (2016), a teacher's subject-matter expertise affects how they present their material to students in the classroom and how well they learn.

Moreover, knowing how educators feel about the curriculum and its execution is crucial for making informed decisions. McNeill et al. (2016) argue that teachers' personal values strongly influence the choices they make in the classroom. Considering the significance of teachers' views, it makes sense to learn about their concerns, values, and points of view in order to proactively address these issues during the implementation phase (Al-Shabatat, 2014; Rakes & Dunn, 2015). Professional development should ensure that instructors completely grasp the goals and provide them opportunity to practice the new curriculum with a class to enhance teacher learning, as suggested by McNeill et al. (2016), one of the primary suggestions. It goes without saying that instructors must be well-versed in and adept at the new curriculum before it can have a positive impact on students' education.

## **Empirical Review**

### **Influence of Teacher Level of Training on the Implementation of CBC**

Teachers set an interface of the transmission of knowledge, values and skills in the teaching and learning processes in schools. This is proven by a number of studies which have revealed that teacher training, qualifications and experience had a positive and significant impact on students' academic performance (Ulla, 2018; Wuryaningsih, Susilastuti, Darwin & Pierewan, 2019). This supports the belief that the quality of education is equivalent to the quality of teachers who put into practice the education system. The following are studies done on the impact of teachers' professional qualifications on the implementation of CBC.

Students' academic performance in Nigeria was studied by Mohammad and Abubakar (2020) who looked at the influence of teacher quality. Findings from the research show that instructors with a higher degree of education are more capable of teaching their students. It also emerged from the findings that well trained teachers create a conducive environment in the classroom for all learners and have good communication skills which make both teaching and learning process interesting. This as a result make learners feel more connected while in the school hence developing a positive attitude towards education. Based on these findings, Mohammad & Abubakar (2020) concluded that teachers' quality is powerful tool for determining students' academic performance and one of the major factors which determines the effectiveness and efficiency of curriculum implementation in schools.

A study on teachers' competency as a cornerstone on the implementation of competency based curriculum (CBC) was conducted by Koskei & Chepchumba (2020). The study adopted a descriptive survey design. The study sample comprised of 200 teachers and 100 headteachers who were selected using both stratified and purposive random sampling methods. A questionnaire and an interview schedule were used as tools for data collection. The study established that teachers' competency had a significant influence on the implementation of the CBC. However, the study found out that although majority of the teachers were having good qualifications in education, they were not well prepared for the implementation of the new curriculum. This study therefore suggested that the government through MOE should organize enough and effective training sessions for all teachers to ensure successful implementation of the competency based curriculum.

Similarly, Makunja (2015) carried a research on teachers' knowledge in implementing competence based curriculum. The study adopted a mixed research techniques where data collected from the field was both quantitative and qualitative in nature. A total sample of 162 respondents was used for the study. Among them, 6 were school heads, 6 academic teachers, 102 class teachers and 48 students. Data was collected using questionnaire, interview schedules and observation checklist. The study found that most of the teachers did not have required knowledge for implementing CBC during the teaching and learning process. The study, therefore, suggested that efforts should be put in place by the government through the Ministry of Education and Vocational Training (MOEVT) to carry out urgent and frequent in-service training among the

teachers to ensure that they are fully equipped with knowledge and skills necessary for implementing CBC proficiently and successfully.

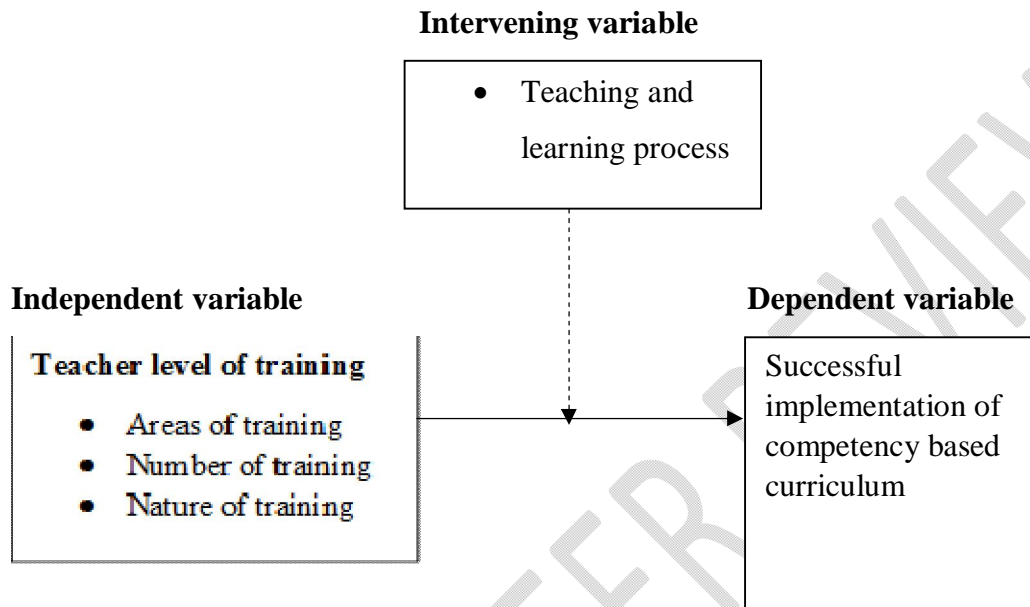
In another setting, David (2020) investigated how teacher related factors influenced the implementation of CBC at the lower primary school level in Luanda sub-county in Vihiga County. The study adopted a descriptive design targeting 50 school heads, 620 teachers teaching pupils in lower primary and 900 Grade 3 pupils. Simple random sampling method was employed to select 15 head teachers, 186 teachers and 90 pupils to participate in the study. Questionnaires and interview schedules were used to collect information from headteachers and teachers respectively. The researcher also used focus group discussion to gather information from grade 3 pupils who took part in the study. The findings of the analysis revealed that teachers' qualifications had a great influence on the implementation of competency based curriculum. Davido (2020) conducted a study in Vihiga County; the current study will be carried out in Kitui County.

Previous researchers have shown that in order for pupils with visual impairments in public special schools to participate in successful teaching and learning processes, the conditions for the teaching and learning process need to be investigated (Brown, 2012; Fean, 2012). This is very crucial because both teachers and students must learn from one another. Children with visual impairment (VI) require the teachers' support in order to learn, whereas teachers need to understand how to facilitate the learning of children with VI. These prerequisites may include the availability of skilled educators, their expertise and abilities, enough teaching resources, suitable course material, the use of child-centered teaching techniques, and their proficiency with assistive technologies.

According to Abu-Hamourand and Al-Hamouz (2013), the "inclusion" movement has a long way to go until it is fully realized in its most comprehensive meaning. This is the case despite the fact that the Ministries of Education and Social Welfare have been working together to raise awareness of the concept of "inclusion," which refers to the practice of include students with special needs in normal classes. According to the recommendations made by Abu-Hamourand and Al-Hamouz (2013), efforts should still be made to bring together educators and policymakers in order to develop training programs for professional teachers on the implementation of differentiated education for learners with special needs who are placed in regular classes. One example of such a learner's need is visual impairment.

## Conceptual frame work

The goal of this study was to explore how teacher-related factors influence competency-based curriculum implementation in Kitui County. The study's conceptual framework is shown in Figure 1.



**Figure 1 conceptual framework**

The independent variables of the study were teacher level of training, technological skills, teaching methods and teachers' attitudes. These factors were expected to affect the proper implementation of CBC which is the dependent variable of the study. The intervening variable of the study was teaching and learning process.

## RESEARCH METHODOLOGY

### Research Design

In the words of Sileyew, (2019) a research design is a framework or strategy for identifying and solving a research issue. A descriptive research approach was used in this study. In the words of Orodho (2012), a descriptive survey is a way of obtaining data by distributing research materials to a specified sample. When obtaining information about people's attitudes, beliefs, and habits, as well as other social issues, a descriptive survey approach is used. The most appropriate

research strategy for this study was a descriptive survey, in which the researcher collected information about the state of affairs in the field, without modifying study variables.

### **Target population**

This study targeted 15 schools among them 1 special school for learners with visual impairment and 14 integrated programs dealing with learners who are visually impaired. The study population comprised of 421 learners with visual impairment in grades one to five, 15 head teachers and 61 teachers who are in charge of learners with visual impairment in grades one to five where competency-based curriculum is being implemented.

### **Sampling Procedures and Techniques**

To recruit study participants, the researcher employed purposive and simple random selection procedures. Head teachers were chosen using a purposeful sampling technique, while learners and teachers in charge of grades one through five where competency-based curriculum is being implemented were chosen using a basic random sample method. Out of the 15 sampled schools, the researcher randomly selected 3 teachers in each school to participate in the study. The researcher also randomly chose 10 visually impaired learners from each school to take part in the study. The study sample therefore comprised of 15 head teachers, 45 teachers and 150 visually impaired learners, giving a total of 210 study respondents which was equivalent to 49.8% of the total population. Between 10% and 30% of the target population should be included in the sample size, according to Mugenda et al. (2012).

### **Research Instruments**

Data was collected using two instruments namely; a questionnaire and an interview schedule. The researcher also collected information from learners with visual impairment through focus group discussions.

### **Questionnaire for Teachers**

A questionnaire was designed to collect data from the teachers. The questionnaire had both open-ended and close-ended items. The first section of the questionnaire collected background information of the study respondents. The second part contained information on the effect of teacher level of training on the implementation of CBC. The third section consisted of the influence of teacher teaching methods on the implementation of CBC. The fourth section captured data on the influence of teacher technological skills on the implementation of CBC

while the fifth section gathered information on the influence of teachers' perception towards the implementation of CBC. The most typical method of gathering information is via the use of a questionnaire. As a result of the speed with which questionnaires may be completed, questionnaires have become a common method of collecting data (Kothari, 2020).

### **Interview Schedule for Head teachers**

The researcher collected data from the head teachers using interview schedules. Interviews are oral administration of questions to respondents by the researcher (Kothari, 2020). The importance of using interview schedule is that the researcher was able to get in-depth information on teacher related factors affecting the implementation of CBC from the head teachers. Additionally, interview schedule was used to collect data from the head teachers due to their busy work schedule.

### **Focus Group Discussion**

Focus group discussion is a method of data collection that was used to collect data from learners with visual impairment. In each sampled school, the researcher organized one focus group discussion with the learners. The researcher gathered information from learners on issues such as availability and usage of the ICT in their schools, teaching methods employed by their teachers and also learners' perception towards competency-based curriculum. Well-organized group interaction may help uncover parts of a situation that might otherwise remain hidden, and it can also encourage individuals to express their perspectives, opinions, intentions and justifications in a way that is more open and honest.

## **RESULTS AND FINDINGS**

### **Response Rate**

The study sample comprised of 150 learners, 45 teachers and 15 head-teachers from public special schools for learners with visual impairment in Kitui County. Among them, 43 teachers completely filled the questionnaires, all headteachers availed themselves for the interviews with the researcher and 120 visually impaired learners fully participated in the focus group discussions. This translated to a turn out number of 178 respondents out of the total 210 respondents. This gave a response rate of 84.8 percent. This was sufficient according to Mugenda and Mugenda (2003) who observed that a 70 percent and over is very good for analysis

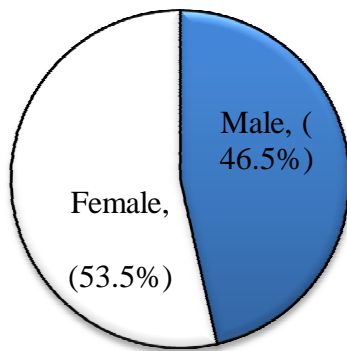
and reporting. This would provide the required information for purposes of data analysis hence this could enhance sample representation and meaningful generalization for the response rate implies a very good representation.

### **Respondent Demographic Information**

The study analyzed data with regards to the demographic factors and the results were presented as follows:

#### **Respondents Gender**

The study sought to establish the respondent’s gender and the results were as shown in Figure 2.



**Figure 2: Respondents’ Gender**

As shown in Figure 3, majority (53.5%) of the respondents who took part in the study were female while 46.5% were male. This implies that the proportion of female teachers in public special schools in Kitui County was slightly higher as compared to that of male teachers.

#### **Teaching Experience**

The respondents were required to indicate the number of years they have taught their current station. The results were as shown in Table 1

**Table 1: Teachers’ teaching duration in the current school**

Teaching experience	Frequency	Percentage
Below 3 years	3	6.9
3-6 years	8	18.6
7-10 years	11	25.6
Above 10 years	21	48.8
<b>Total</b>	<b>43</b>	<b>100.0</b>

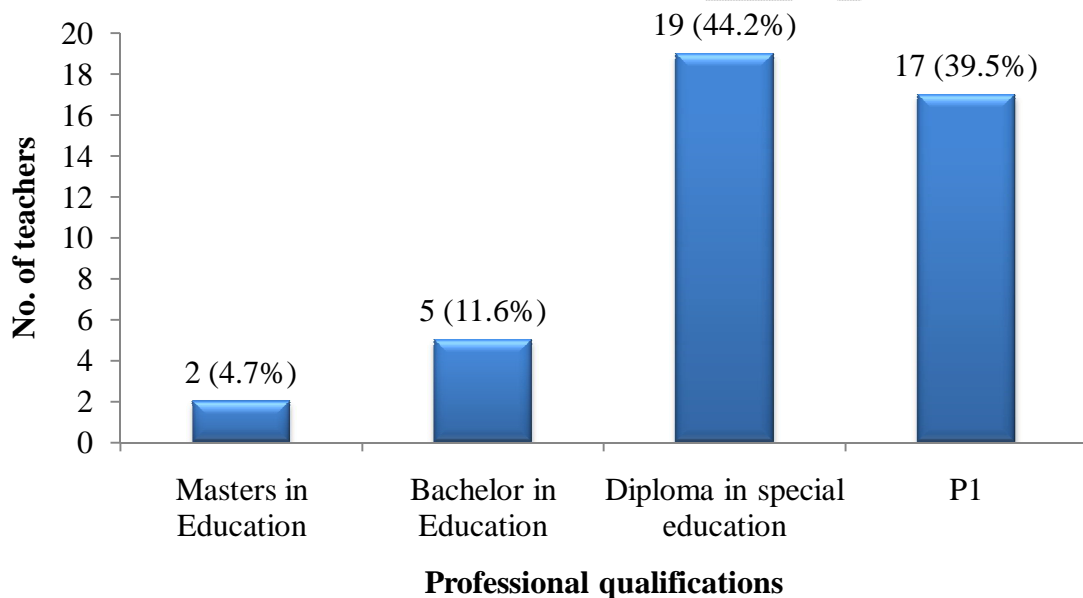
The findings presented in Table 2 indicates that (6.9%) of teachers had taught in their current schools for less than 3 years, (18.6%) had taught for 3 to 6 years, (25.6%) had taught for 7 to 10

years while (48.8%) had taught for over 10 years. This implies that majority of the teachers had worked for a long time in the current schools. Therefore, they were expected to have an adequate knowledge concerning teacher-related factors influencing the implementation of the CBC in the region. This information was also supported by the results from the head teachers interview guide which revealed that majority (73.3%) of the head teachers had worked in their respective station of a period of more than 5 years, while 20% of the headteachers had worked for a period between 1 to 5 years and 6.7% had held the office for period of less than one year.

### **Descriptive Statistics of online advertisement**

#### **Influence of Teacher Level of Training on the Implementation of CBC**

The first objective of the study was to assess the influence of teacher level of training on the implementation of CBC in public special schools for learners with visual impairment in Kitui County. To address this objective, the researcher first sought to find out profession qualifications attained by the teachers. Figure 3 below shows results obtained.



**Figure 3: Profession qualifications attained by teachers**

Figure 3 illustrates that 44.2% of the teachers had attained diploma in special education, 39.5% had attained P1 qualifications, 11.6% had Bachelor in Education and 4.7% had Masters in Education. This finding implies that all teachers who participated in the study had attained professional qualifications required for them to teach in primary schools.

After establishing the profession qualification attained by the teachers, the researcher sought to determine the number of teachers who have attended in-service training on the implementation of CBC and the topics covered during the training.

**Table 2: Teacher/head teachers training attendance**

CBC training	Frequency		Percent	
	Teacher	Head teacher	Teachers	Head teacher
<b>Yes</b>	33	15	76.7	100
<b>No</b>	10	0	23.3	00
<b>Total</b>	<b>43</b>	<b>15</b>	<b>100</b>	<b>100</b>

From the findings in Table 3 majority 10 (23.3%) of teachers indicated that they had not attended any in-service training while 33 (76.7%) reported that they have attended training. The findings also indicated that 100% of the headteachers had attended an in-service course on CBC implementation. These findings were similar to those of study by Ondimu (2018) on study to establish teachers' readiness in implementation of CBC in private preschools in Dagoretti North Sub- County, Nairobi County. The study results indicated that majority of the teachers had not received adequate training in the CBC where by majority (35.2%) had attended only one training in CBC, 25.8% had attended two in-service training in CBC and 9.7% had attended more than five trainings in implementation of the CBC. Brand (2018) contend that lack of teacher training is one of the greatest roadblocks to implementation of curricula in learning institutions. On the same breath, Boe (2017) emphasizes that teachers must have substantial and constant training if they are going to acquire and, in turn, transfer to the classroom the knowledge and skills necessary to effectively and completely infuse their skills into curriculum implementation.

Therefore, since majority of teachers in the public special schools had not attended training on CBC, it means that the teachers lack adequate knowledge and skills on how to implement the curriculum. This implies that they are not able to implement the curriculum effectively, therefore, they require more training on how to implement the curriculum.

Those who had attended the training were asked to indicate the areas covered during the training. The responses were as indicated in Table 4

**Table 3: Topics covered during CBC implementation training**

Topics	Frequency	Percentage
--------	-----------	------------

<b>Core competencies</b>	10	100.0
<b>Preparation of schemes of work</b>	9	90
<b>Digital literacy</b>	8	80
<b>Lesson plans</b>	7	70
<b>Pupils' assessment using portfolios and rubrics</b>	6	60
<b>Teaching approaches</b>	4	40

As shown in Table 3, all the teachers who attended in-service training reported that they were taught core competencies required for successful implementation of the new curriculum. Over 90.0% of them cited that they covered preparation of the schemes of work, digital literacy (80%) and lesson plans while significant proportion (60%) of the teachers also cited that they were taught on how to use portfolios and rubrics while assessing pupils' competency level while 40% cited that they were trained on teaching approaches.

The study sought to establish the rating of the teachers who had attended training on CBC. The results are as indicated in Table 4.

**Table 4: Rating of the number of teachers who have attended training on CBC**

<b>Rating</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Below average</b>	7	16.3
<b>Average</b>	34	79.1
<b>Above average</b>	2	4.7
<b>Total</b>	<b>43</b>	<b>100.0</b>

Results presented in Table 4 indicates that majority (79.1%) of the respondents rated the number of teachers who have attended CBC training as average. The results were also supported by the head teacher's responses rated the teachers trained in CBC as average and supported by 73.3% of the head teachers.

The study further sought to establish respondents' ratings of teachers' level of training on the competency-based curriculum. The responses obtained are presented in a 3-point likert scale ranging from 1 to 3. One represents disagree, 2 denotes neutral and 3 represent agree. Table 5 depicts results obtained by the study respondents

**Table 5: Teachers' level of training as reported by respondents**

Statement	Agree		Neutral		Disagree		Mean
	f	%	f	%	f	%	
Teachers in your school are well prepared to handle CBC	17	39.5	3	7.0	23	53.5	1.86
Teachers' academic qualifications affects their ability to interpret and implement CBC	25	58.1	4	9.3	14	32.6	2.26
Teachers' experience in teaching affects their ability to interpret and implement CBC	31	72.1	2	4.7	10	23.3	2.49

Table 5 shows that over 50.0% of the respondents were in disagreement with the statement that teachers in their school were well prepared to handle new curriculum, 39.5% of them were in agreement with statement while 7.0% were neutral. In terms of academic qualifications, 58.1% of the teachers agreed that teachers' academic qualification affected their ability to interpret and implement CBC, 32.6% disagreed and 9.3% were neutral. In relation to teaching experience, majority of the respondents (72.1%) agreed that teachers' experience in teaching affected their ability to interpret and implement CBC, 23.3% disagreed with the statement whereas 4.7% of them were undecided. These findings were similar to findings reported by Waweru (2018) who conducted a study which examined the extent to which lower primary school teachers were trained to implement the CBC in Nyandarua North Sub- County, Kenya. Results showed that 98.8% of the teachers were not trained to implement the curriculum especially in the new learning areas.

Similarly, KNUT (2019) examined the extent to which primary school teachers had been trained in implementing the CBC and revealed that majority of the teachers had not received any

training on the new curriculum. Further, the findings concur with the findings by Abdullahi (2020) who investigated school factors influencing the implementation of CBC in pre-schools in Garissa Sub-County, Kenya. The study established that majority (68%) of teachers in public schools had not attended any training on how to implement the new curriculum.

### **Summary of the results**

The study assessed influence of teacher related factors on the implementation of CBC in public special schools for learners with visual impairment in Kitui County. The objective that guided the study was to assess the influence of teacher level of training on the implementation of CBC in public special schools for learners with visual impairment in Kitui County.

The study used descriptive survey design. The study targeted 15 schools among them 1 special school for learners with visual impairment and 14 integrated programs dealing with learners who are visually impaired. The study population comprised of 421 learners with visual impairment in grades one to five. A sample size comprised of 15 head teachers, 45 teachers and 150 visually impaired learners, giving a total of 210 study respondents. Data were collected using questionnaires for teachers, interview schedules for headteachers and focus group discussion guides for the learners. Data were analyzed both quantitatively and qualitatively. Findings are as summarized in the following subsequent subsections.

### **Influence of Teacher Level of Training and Implementation of CBC**

The study findings show that 44.2% of the teachers possessed a diploma in special need education, 35.9% had P1 certificate while 11.6% and 4.7% had bachelor degree and masters respectively. These findings revealed that the teachers had attained the minimum professional qualification that is required for one to be employed at primary school level in Kenya. The fact that there were no unqualified teachers implementing the CBC was an indication of effective implementation of the CBC. Descriptively majority 76.7% of teachers indicated that they had not attended any in-service training while 23.3% reported that they have attended training. All the teachers who attended in-service training reported that they were taught core competencies required for successful implementation of the new curriculum. Over 90.0% of them cited that they covered preparation of the schemes of work. The study 79.1% rated the number of teachers who have attended CBC training as average. The study further revealed that over 50.0% of the respondents were in disagreement with the statement that teachers in their school were well

prepared to handle new curriculum.

### **Conclusion**

From the findings of the study, it was concluded that teacher related factors influence implementation of competency-based curriculum. Teachers had sufficient educational levels and vast experience in teaching. Most of teachers were prepared to implement CBC in terms of content knowledge and teaching methods. In addition, teachers held positive perceptions towards implementation of CBC. However, teachers were inadequate in technological skills and training. This is a great area of concern because teachers are expected to integrate ICT across all subjects in the CBC. Teacher related factors such as professional and academic qualifications, experience, pedagogical content knowledge, technological skills and teacher perceptions are requisite for effective implementation of CBC.

### **Recommendations**

From the study findings, the following recommendations were made:

It is recommended that the Ministry of Education in conjunction with the Kenya Institute of Curriculum Development and Teachers Service Commission should continue training teachers on ICT knowledge and skills that are very critical to implementation of the new curriculum. Since Subject content knowledge involves mainly what the teachers teach and what the learners learn, it is crucial that teachers be fully trained and in-serviced to effectively engage with the learners during the delivery of classroom instructions. Therefore, the Ministry of Education should come up with a schedule of in-service training programmes to ensure continuous professional development of teachers. Competency-based curriculum is a new concept in Kenya and teachers need re-skilling for flexibility in adapting the new teaching methodologies and structure of the content.

## REFERENCES

- Abdiaziz, O. A. (2019). In public pre-schools in Garissa Sub- County, Kenya, school-based variables are impacting the adoption of competency-based curricula. Garissa County. *Unpublished Med Thesis*, Nairobi University, Kenya.
- Abu-Hamour, B. & Al-Hamouz, H. (2013). Services for Students with Disabilities in Jordan, Education for Students with Disabilities in Europe. *Research on Globalization in Education*, 6(12).
- Al-Awidi, H. & Aldhafeeri, F. (2017). How ready Kuwaiti educators are to implement a digital curriculum. *Computers in Education Research Journal* 16,105-126.
- Alianda, B.M. (2018). Problems that pupils who are blind or have low vision confront while trying to study physics at a typical secondary school. *International Journal of Education, Learning and Development*, 6(9); 38-50.
- Allais, S. (2014). *Selling out education is the result of national certification schemes and the rejection of knowledge*. Springer.
- Al-Shabatat, A. (2014). The rising level of anxiety among Jordan's brilliant educators about adopting online education. *Turkish Online Journal of Technology*, 13(2), 79-87.
- Amutha, D., (2020). How Information and Communication Technologies Affect and Contribute to Better Classroom Instruction. Accessible via SSRN: <https://ssrn.com/abstract=3585228> or <http://dx.doi.org/10.2139/ssrn.3585228>
- Brown, R. (2012). *Teachers' views on pedagogy and student learning in secondary education in Jamaica, with a focus on the inclusion of pupils with visual impairments*. Unpublished MA Dissertation, University of Sussex.
- Buabeng-Andoh, C. (2012). An investigation on how teachers in Ghana's second-cycle schools use ICT skills, perceptions, and practices. *Contemporary Educational Teaching*.

- Cheptoo, R. & Ramadas, V. (2019). Teaching and Learning in the 21st Century with an African-American Focus. *The Shanlax Journal of Education and Development*, 7(4)46-51.
- Creswell, J. W. (2015). *To introduce the topic of mixed-methods research in a brief and accessible manner*. Sage Publications Ltd.
- Dagnew, A. & Mekonnen, D. (2020). Students' understanding of photosynthesis is enhanced when the guided inquiry approach is used to teach it in grade eight at a primary school in Ethiopia. *International Journal of Innovative Research in Education*, 7(1), 01-15.
- David, S.O. (2020). Teachers in Vihiga County, Kenya's Luanda Sub-County, play an important role in the development of competency-based education in lower elementary schools. *Unpublished Med Thesis*, Nairobi University, Kenya.
- Ellsworth, J. B. (2000). *Models for implementing change in educational institutions and how to survive it*. NY: ERIC Clearing House on Information and Technology.
- Farah, N. & Ayoubi, Z. (2020). Using an inquiry and reflection pedagogy to improve eighth-grade chemistry students' critical thinking. *Journal of Education in Science Environment and Health*, 6(3), 207-219.
- Fean, P. (2012). Working together with adult education instructors in Sudan to learn about the field, its evolution, and the methods of researchers. Doctoral thesis, University of Sussex.
- Frost, D. & Gentz, S. (2015). *High-Performance Countries Using Elements of Competency-Based Education: A Global Highlights*. We're always looking for new ways to learn and better ways to put that knowledge to use.
- Fullan, M. (1991). *Modifying Education and Its Meaning*. New York: Teachers College Press.
- Ghavifek, S. & Anthony, A. (2016). Perspectives of Teachers on the Benefits and Drawbacks of Using ICT in the Classroom. *Malaysian Online Journal of Educational Technology*, 4(2); 38-57

- Gross, N. (1971). *Application of Innovation in Organizations. Studying the Social Impact of Proposed Reforms in the Classroom*. New York: Basic Book Inc
- Gruber, G. (2018). *Students' Advantages of Competency-Based Education* Explorance. *The Itupale African Studies Journal*.2; 39- 54.
- Hafeez, M. (2021). The Effect of Teacher Education on Student Engagement and Academic Success across a Variety of Instructional Strategies. *Pedagogical Research*, 6(3), 2-10.
- Hair, J. F., & Anderson, R. E. (2022). *Analysis of several variables* (7th ed.). Published by Prentice Hall in Englewood Cliffs.
- Heggart, K. (2016). How important is subject matter knowledge for a teacher. <https://www.edutopia.org>.
- Isaboke, H.G. (2018). Teachers in Kenya's Nyamira County's lower elementary schools are better equipped to use information and communication technologies into their lessons.
- Jelagat, E. A. (2020). The challenges that educational assessment resource centers in five Kenyan counties face were identified and analyzed. *The African Journal of Education and Development*.
- Kabiro, J.W. (2013). Secondary school principals' contributions to the successful implementation of curricula in Murang'a county, Kenya, and their impact on student learning and success. Unpublished Med Thesis, Kenyatta University.
- Kabita, D. N. & Ji, L. (2017). *Why, what and how Kenya implemented competency-based curriculum changes*. International Bureau of Ethnicity and Ethnic Studies (IBE-UNESCO)
- Kahongeh, J. (2018). *Schools are ill-equipped to help children with disabilities: Report*. Kenya relies heavily on the competence of teachers. Schools in Nakuru County's lower elementary grades. *Educated Minds: An International Journal*, 8 (2); 1-10.

- Kane, M. T. (2013). Validating Test Score Interpretations and Applications Educational *Measurement Journal*
- Kenya Institute of Curriculum Development (KICD) (2017). *Facilitators' training handbook for early childhood education*. Government Printer, Nairobi.
- Kenya National Union of Teachers' (KNUT, 2019). Teachers' readiness to execute the competency-based curriculum in Kenya's pre- and lower-primary schools. Nairobi. Government printers.
- KICD (2018). The National Steering Committee received a report on competency-based curricular initiatives. KICD, Nairobi.
- Komba, S. C. & Mwandanji, M. (2015). Tanzanian secondary school teachers' thoughts on the introduction of competence-based curriculum.
- Koskei, B.K. & Chepchumba, E. (2020). Competency-based education in Kenya relies heavily on the competence of teachers. Schools in Nakuru County's lower elementary grades. *Educated Minds: An International Journal*,8 (2);1-10.
- Kothari, C. (2020). *Methodologies and approaches for research New Age International (P) Ltd., New Delhi*
- Langat, A.C. (2015). Kenyan elementary schools face several challenges when attempting to deploy, new types of information and communication technologies to develop or embrace (ICT). *International Journal of Innovative Technology Research and Development*.
- Lewis, M. W., (2014). *Realizing the promise and overcoming the challenges in competence education*. Jobs for the Future, Boston, MA.
- Lund, T. (2012). Some justifications for doing mixed methods research, which combine qualitative and quantitative techniques. *Scandinavian Journal of Educational Research*, 56(2), 155-165.

- Maimela, H. S. (2015). *In Seshego Circuit, Limpopo Province, the impact of curriculum modifications on elementary school teachers (Doctoral dissertation)*. Pretoria campus of the University of South Africa
- Makunja, G. (2015). What benefits may a competency-based curriculum bring to Tanzanian secondary education? *International Education and Research Journal*
- Mandukwini, N. (2016). High school teachers in the mount fletcher area in the Eastern Cape face several obstacles when trying to adopt a new curriculum. *Unpublished Med Thesis*, University of South Africa.
- Mbalo, L. (2018). Educational outcomes for visually challenged students in mainstream primary schools in Katulani Sub-County, Kitui County, and its surrounding areas. *Unpublished MEd Thesis*, Kenya Methodist University.
- McNeill, K. L., & Loper, S. (2016). Causes that influence how educators train their students to argue in scientific classes. *Journal of Contemporary Education Research by African Scholars*.
- Ministry of General Education (MoGE) (2013). Curriculum Framework for Zambian Education Curriculum Development Center, Lusaka.
- Mohammad, U. & Abubakar M. (2020). Student academic achievement is influenced by teacher quality in Secondary schools in Nigeria's North Central Zone. *Journal of Contemporary Education Research by African Scholars*.
- Moruri, J.M. (2021). Causes of teachers' lack of readiness for mainstreaming students with special needs in Masaba South Sub County, Kisii County's public primary schools. *Unpublished MEd Thesis*, Maasai Mara University, Kenya.
- Mosha, H.J. (2012). *Tanzanian Learning Materials for Competency-based Curriculum or Knowledge and Skills*. Festival of Education and Training in Africa (ADEA-2012). Ouagadougou: ADEA

- Mugenda, M. O. & Mugenda, G. A. (2012). *Methods of qualitative and quantitative research Nairobi is home to the African Centre for Technology Studies (ACTS)*.
- Muraraneza, C. & Mukamana, D. (2017). A meta-synthesis of curriculum reform issues and barriers in Africa to competency-based curricula. In the field of nursing and health care. Vol. 19(1), 5–12.
- Murithi, J. (2021). Teachers' usage of ICT in Kenyan public elementary schools to execute the competency-based curriculum. *Invention and Education*; 3:5.
- Mwangi, M. & Khatete, D. (2017). Challenges and opportunities for ICT professional development in Kenyan schools. *European Journal of Educational Research*.
- Nasiforo, B.M. (2015). Problems in the Classroom challenges that university of Rwanda college students who are blind face. *Unpublished PhD Thesis*, Kenyatta University.
- Ngeno, B., & Mweru, M. (2021). Kericho County Primary School Teachers' Attitudes Towards Curriculum based on competencies. *The African Journal of Educational Research in the East*.
- Njengere, D. (2017). *The Kenyan Experience with Competency-based Curriculum Reforms: Why, what, and how*. UNESCO international Bureau of Education.
- Nuraini, D. (2019). High schools in the West Java region of Indonesia are undergoing a curriculum shift as they adopt the English Curriculum for 2013. *Unpublished PhD Thesis*, University of Exeter, Indonesia.
- Ochieng T.O. (2017). Barriers and opportunities for teaching Kiswahili in elementary schools in Homa Bay County, Kenya. *Unpublished MEd Thesis*, Kenyatta University, Nairobi, Kenya.
- Okenyi, S. (2011). The problem of transition in democratizing education in Africa using a learner-centered approach. *Research Development: An International Journal*.

- Okongo, R.B., & Nyongesa, W. (2015). Impact of Preschool Centers' Access to Instructional Materials on Inclusive Education in Nyamira North, Kenya. *Journal of Education and Practice*, 6 (35); 132-141.
- Ondimu, S. M. (2018). It is being implemented in private pre-schools in the Dagoretti North sub-county of Kenya's capital city of Nairobi.
- Orodho J.A. (2012). *Education and social science research proposal and report writing techniques*. Maseno Kenya is the local dialect. Publishing house: Kanezja
- Otyola, W.R., & Mugagga, A.M. (2017). Issues Facing Blind and Visually Impaired Students in Uganda's Makerere and Kyambogo Universities. *Journal of Higher Education*, 9 (1); 75 – 86
- Passmore, A. (2013). Suitability of the typical preschool setting for children with visual impairments. *Journal of special education*; 46, 223-232 Google scholar/SAGE journal/151/
- Piper, B. (2015). Tablets and e-readers in Kenya's ICT policy: how they improve student performance.
- Polizzotto, K. & Tamari, F. (2015). To better understand biological ideas, lectures often include hands-on demonstrations. *Journal of Microbiology & Biology Education*, 16(1), 79-81.
- Rakes, G. & Dunn, K. (2015). Finding out what worries educators most about online teaching. *Journal of Research on Technology in Education*, 47(4), 229-241.
- Republic of Kenya (2017). *The structure for a basic education program. The Kenya Institute of Curriculum Development is based in Nairobi.*
- Republic of Kenya (RoK) (2012). *Committee on Education Sector Realignment with Constitution 2010: Achieving Global Competitiveness and Sustainable Development in Education.* The government printer in Nairobi, Kenya.

- Roztocki N.P. & Weistroffer, H.R. (2019). For a more nuanced understanding of how ICTs affect economic and social growth, *Information Technology for Development*, 25:2, 171-183,
- Rwanda Education Board (REB) (2015). *It's a competency-based education: Pre-school through high school is included in this framework*. In Kigali, the Rwandan Education Board.
- Rwezaura, P.A. (2016). Kinondoni municipal elementary schools have implemented a competence-based English curriculum. *Unpublished MA in Education thesis*. Open University of Tanzania.
- Sadeq, T., Akbar, R. & Al Wazzan, F. (2021). An inquiry of the implementation of competency-based training in Australia. *Education beyond the age of obligatory education*.
- Scheopner, A. T. & Greller, S. (2018). *Implementation of competency education: Examining the impact of surrounding factors in three New Hampshire high schools*.
- Sileyew, K.J. (2019). Methodology and study layout. DOI: 10.5772/intechopen.85731
- Singh, T. K. R. & Chan, S. (2014). A case study of Malaysian teachers' attitudes on ICT integration in teaching and learning. *The Asian Social Science Journal*, 4, 874-885.
- Smith E (1996). An investigation on the extent to which competency-based training is being used in Australia. *Education after compulsory schooling*.
- Stabback, P. (2016). *What are the characteristics of a good curriculum?* Reflection in Progress No. 2 UNESCO is based in Paris.
- Sturgis, C. (2017). *A framework for equity tactics in competency-based education in the quest of equality*. Association for K-12 online learning in Vienna, VA.
- Tugli, A. K., & Anyanwu, F. C. (2013). Barriers to providing services to disabled students at a historically underprivileged university. *African Journal for Physical, Health Education, Recreation and Dance*, 1(2): 346-55.

- Ulla, M. B. (2018). The instance of university faculty in Yangon, Myanmar, is used to illustrate the need of continuing education for working educators. *Australian Journal of Teacher Education*, 43(1), 66-77.
- Urunana, M. (2018). Successes and setbacks in implementing CBC. *Teacher Education in Africa*.
- Venkatesh, V., Brown, S. A. & Bala, H. (2013). Bridging the qualitative-quantitative divide: Guidelines for conducting mixed methods research in information systems. *MIS Quarterly*, 37(1), 21-54.
- Vrbik, I., & Vrbik, A. (2017). Education via videotaped presentation. *Croatian Journal of Education*, 19(2), 201-213.
- Waigera, J. K., (2020). Kenyan Pre-Primary School Teachers' Opinions on the Use of Instructional Material. *The African Journal of Educational Research in the East*.
- Wambiri, G. (2016). Kenyan primary school teachers' attitudes, self-efficacy, computer proficiency, and age: *Teacher Education in Africa*.
- Waweru, W. J. (2018). Whether or not teachers are ready to implement the Competency Based Curriculum in Nyandarua North Sub County, Kenyan public elementary schools.
- Wuryaningsih, W., & Pierewan, A. (2019). Examining the impact of face-to-face and online training on Indonesia's teaching corps. *International Journal of Emerging Technologies in Learning (iJET)*, 14(21), 123-147.
- Zulu, C. (2015). Teachers are introducing a new curriculum to empower their students. *The Zambian Times*.
- Ainoutdinova, I., & Blagoveshchenskaya, A. (2018). Peculiarities of Teacher-Centered and Learner-Centered EFL Training Methods at Universities in Russia. In *ICERI2018 Proceedings* (pp. 10315-10325). IATED.