

Effect of Headteachers' Instructional Supervision Practices on the Implementation of Competency-Based Curriculum in Primary Schools in Katangi Zone, Yatta Sub-County Machakos County Kenya

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Abstract

This research project explored headteachers' instructional supervision practices and implementation of competency-based curriculum in primary schools in Katangi Zone, Yatta Sub-County, Machakos County, Kenya. Kenya rolled out the CBC in primary schools in 2018 with the aim of equipping the learners with competencies and skills to meet resource aspirations of development. The study's null hypothesis was "there is no statistically significant relationship between headteachers' instructional supervision practices and implementation of competency-based curriculum in public primary schools in the Katangi Zone of Yatta Sub-County in Machakos County, Kenya. This study adopted a descriptive survey design. The study targeted all 35 public primary schools, 35 headteachers, and 316 teachers in Katangi Zone, Yatta Sub-County. The schools were randomly sampled. Questionnaires were used for data collection. The Pearson Product Moment Coefficient formula was employed for correlation. Data was analyzed by use of SPSS version 32. Descriptive statistics such as frequencies, percentages, means, and standard deviations and inferential statistics like regression models were used to analyze the quantitative data. The results revealed that there was a statistically significant relationship between headteachers' instructional supervision practices and the implementation of competency-based curriculum in public primary schools in the Katangi Zone of Yatta Sub-County in Machakos County, Kenya. This was at r values of 0.67, which was strong positive and significant at a 0.014 significance value. Based on the results, the study recommends that the headteachers and boards of management, the Ministry of Education, and the Teachers Service Commission train teachers on competency-based curriculum and provide instructional resources in schools. Headteachers should involve parents in the implementation of CBC as well as intensify instructional supervisory practices.

1. Introduction

Education is an important agency for growth and posterity of any society. It is taken as a crucial tool for bringing out positive change in the political, social and the economic life of the people. According to United Nations Educational, Scientific, and Cultural Organization (UNESCO, 2011). Societies all over the world transmit their accrued culture, attitudes skills and knowledge from one generation to another through education. Nations across the globe have reformed their education systems from knowledge-based education system to skill-based education systems which emphasize on learners acquisition of life long skills. Education all over the world is evolving to train learners who are able to apply skills in real-life situations proficiently. Learning has thus shifted from a curriculum that is content-based curriculum into a skill-based curriculum.

Curriculum is the medium through which nations around the globe equip the general public with values, knowledge, skills, and attitudes needed for people to be economically and socially active in order to achieve personal and national development (Yunita, 2015). A functional and relevant curriculum is crucial for a society to achieve its educational goals. Teachers, pupils, school leaders, and community stakeholders benefit from an effective curriculum since it provides a measurable plan and approach of delivering quality education. For the society to prosper, an education system must subject its people to a curriculum. The curriculum should address what the learners are expected to do rather than what they are expected to learn and instill lifelong skills. UNESCO, (2015) describes Competence Based Curriculum (CBC) as a medium by which a country endows its citizens with knowledge, values and skills that help them fit in the society. UNESCO (2015) posit that CBC empowers learners to perform practically and demonstrably, using the skills acquired through learner-centered instruction.

Competency is the ability to do a particular activity to a prescribed standard. Competency Based Education (CBE) focuses on what learners are expected to do rather than on what they are expected to know. In CBE, the goal is to get all learners master a set of skills to a predetermined standard. Competency Based education is an approach to schooling and learning designed to emphasize on the significance of developing skills and knowledge. In CBE, the emphasis is on what students need to know and are able to do with emphasis being on what they can do in varying and complex real-life situations (BECF 2019). Competency Based Curriculum engages learners with hands on activities and exposes them to real-world experience; learners are promoted to higher levels after mastering various skills and competencies satisfactorily as opposed to examination performance. The purpose of CBC is development of learners' skills such as critical thinking, problem solving, decision making, collaboration, learning to learn, stress management, communication, assertiveness and interpersonal relationships (Kithungu, 2026).

The approach allows learners to advance based on their ability to master a skill or competency at their own pace regardless of the environment (BECF, 2019). Therefore, CBE is outcome based rather than content-based education. The needs, expectations and the dreams of the society make the focus of CBC. The goal of CBC is to find solutions to societal issues. Schools are expected to instill in pupil's desirable knowledge, skills, and attitudes as well as morals and values. It has been stated that: Competence-based education is creating opportunities for learners, close to their world of experience in a meaningful learning environment (preferable the professional practice) wherein the learner can develop integrated, performance-oriented capabilities to handle the problems in practice. These capabilities consist of clusters of knowledge structures and also cognitive, interactive, affective and where necessary psychomotor skills, and attitudes and values, which are conditional for carrying out tasks, solving problems and effectively functioning in a certain profession, organization, position and role.' (Wesselink, Lans, Mulder, & Biemans, 2004). This definition encompasses intellectual, cognitive and attitudinal dimensions, as well as performance (Whitty & Willmott, 1991).

Competency based teaching-learning methods have gained acceptance among stakeholders in the education sector world over. Many countries around the globe have carried out reforms in educations and in their curricular to include CBC key competences, values and principles. In United States of America for instance, it was entrenched into national curriculum in 1970s with the aim of measuring acquisition of descriptive skills, knowledge and behavioral transformation amongst the learners (Richard and Rodgers, 1971). In United Kingdom and Germany, it was introduced in mid-1980s with the aim of advancing practical skills among the learners (Marwa, D., & Onyango, D. O., 2022). Since 1998, the Flanders' Educational Government in Belgium and other Countries in Western Europe implemented competences in their teacher training programs in order to achieve the competence-based goals (Spencer and Spencer, 1993, Van Dongen, 2003, Weinert, 2001). In Asia CBC begun in many countries including Indonesia Pakistan, Kuwait and many other countries to train learners on how to apply acquired skills in real-life experiences (Nodine, 2016).

In Ghana, a study done out by Acquah, Frimpong and Kwame (2017) revealed that implementation of the Competency based methodologies had contributed immeasurably to the training of skilled graduates required in the job market. The study further posited that despite the commendable outcomes, the curriculum had not been well implemented in many schools due to inadequate teaching and learning resources, parental support and poor supervision. These revelations suggest that implementation of CBC has been challenged by a myriad of factors in the schools. These factors may however not be specific to Ghana alone.

In Tanzania, Makunja (2016) examined the challenges influencing teachers in the implementation the Competency Based Curriculum. The study found out that teachers were faced with myriad of impediments while implementing of the curriculum. The study established that poor of in-service training of teachers on CBC, in sufficient teaching and learning resources, materials and poor learning infrastructural facilities were the major challenges hampering effective implementation of the CBC in Tanzania. Based on these findings, the study suggested that teachers and other stakeholders should participate in developing the curriculum. Makunja (2016) also recommended that the Ministry of Education should provide instructional materials, and other infrastructural support consistent with the CBC implementation. This study was done in Tanzania while the current study is being done in Kenya in Katangi Zone of Yatta Sub County to investigate whether similar factors could be impediments in the implementation of CBC in Kenya.

Education in Kenya is a basic fundamental human right as provided for in Kenya constitution 2010 and as articulated in Basic Education Act 2013 (Republic of Kenya, 2013). Every Kenyan child has right to education and therefore it is the responsibility of the government to offer quality education to her citizens. Education reforms are therefore meant to offer relevant education and ensure it meets the goals of education in Kenya. To this end Kenya has experienced many curriculum reforms since independence in its quest to make education meet the aspirations and the needs of both international and national standards.

The Ominde commission of 1964 established 7-4-2-3 system of education; 7 years' primary education, 4 years' secondary education, 2 years of advanced level education and 3years of university education with the aim of mobilizing resources to achieve national development. In 1981 Mackay report introduced 8-4-4 system of education where 8 years were to be spent in primary school, 4 years in secondary school and 4 years in the university this anticipated to make education technical oriented. In 2011 Douglas Odhiambo commission terminated 8-4-4 and recommended that a Task Force be formed to re-align Education to the Kenya Constitution 2010 which birthed CBE in 2016 (BCEF, 2019).

Competency Based Education stresses on attainment of competencies such as communication and collaboration, critical thinking and problem solving, Imagination and creativity, citizenship, learning to learn, self-efficacy and digital literacy. CBE also embraces inculcation of life values to the learners such as love, responsibility, respect, unity, peace, patriotism, social justice and integrity. The system also envisages to instill principles of life to the learners such as opportunity, excellence, diversity, inclusion, parental empowerment and engagement and community service learning (BCEF2019). These are the key pillars for CBC which are aimed at developing all round learner with skills for long life education.

Research findings by Wanzare (2013) show that teachers were not inadequately trained to deliver and assess CBC from the onset which affected their teaching and assessment of CBC. Wanzare (2013) further attest that supervision and monitoring of learning is a key element for progress of educational program. Absence of monitoring affect the quality of implementation of the educational program. The domiciling of Junior secondary in primary school has proved to be a challenge which has adversely affected the implementation of CBC primary schools.

A study by Kithungu (2026) on CBC implementation and level of teacher preparedness and in public primary schools in Mwala Sub-County, Machakos County Kenya, concluded that there is need to provide teachers with adequate CBC pre-service training and expose them to timely and quality CBC in-service training to ensure that they are well prepared for the implementation of Competency Based Curriculum; Continuous retooling of teachers was also found vital in determining the teacher's preparedness and implementation of Competency Based Curriculum. This requires headteachers instructional supervisory strategies to enhance curriculum implementation.

The government of Kenya, through the Ministry of Education has done quite a lot in an attempt to provide teaching and learning resources, employ junior school teachers, put up infrastructural facilities in school, funded education (Momanyi, & Rop, 2020). Despite all these interventions, the level of CBC implementation has remained low, due to lack of teacher and parental involvement in decision-making regarding CBC adoption, poor administrative

support, inadequate digital literacy skills to integrate ICT in classroom activities besides being a core competence of CBC, insufficient educational resources, and high teacher pupil ratio cause disparities in the level of teachers' execution of CBC in primary schools. These factors indicate the need for this study to investigate headteachers' instructional supervision practices and their effect on the implementation of the Competency Based Curriculum in primary schools in Katangi zone, Yatta Sub-County Machakos County Kenya.

1.2 Statement of the Problem

The fast and complex changing world coupled with dynamic technological advancement and great need for skilled manpower in the labour market within an ever-growing world economy has brought new challenges and new requirements in the education sector. The introduction of Curriculum Based Education in Kenya faced many challenges from stakeholders and other key participants during the time of launch in 2017. Some stakeholders like the teacher unions had the feeling that the country was not prepared for the new curriculum. Teachers also had a feeling that there was no sufficient stakeholder participation and discussion about the Competency based Curriculum. Many challenges were perceived such as insufficient infrastructure, teaching and learning resources, poor parent involvement and that education managers had not been inducted on the management of the new system.

Challenges Facing Teachers in Implementing Competence Based Curriculum include; lack of trained teachers, financial constraints, and lack of management and administrative support among other factors affecting the implementation of CBC. The Ministry of Education and Teachers Service Commission have made efforts to support the implementation of CBC, but the level of uptake is still low and is still facing myriad of challenges. In Katangi Zone teachers were not adequately trained on CBC, the junior secondary schools have not been staffed, parents are not aware of their role and administrative support is very little from the managers. Hence, the need for this study to investigate how headteachers' instructional supervision practices affect the implementation of Competency Based Education in primary schools in Katangi zone, Yatta Sub-County Machakos County Kenya.

1.3 Specific Objectives of the Study

The study was guided by this objective;

To establish the effect of Headteachers' instructional supervision practices on the implementation Competency Based Curriculum in Primary Schools in Katangi Zone, Yatta Sub County Machakos County Kenya.

1.4 Research Questions

The study intended to answer this question;

What is the effect of the Headteachers' instructional supervision practices on the implementation Competency-Based Curriculum in Primary Schools in Katangi Zone, Yatta Sub County Machakos County Kenya?

1.5 Hypothesis of the Study

The study tested the following hypothesis;

There is no statistically significant relationship between Headteachers' instructional supervision practices and implementation Competency Based Curriculum in Primary Schools in Katangi Zone, Yatta Sub County Machakos County Kenya.

2 Literature Review

Headteachers' Instructional Supervision Practices and Implementation of Competency Based Curriculum

The school's educational curriculum is facilitated by the teachers through direction of the head teacher. Instructional supervision entails observing and watching the activities of teachers, which are aimed at monitoring their work as well as providing professional direction in order to improve the quality of instructional delivery. According to Clark (2008) supervision is the act of improving instruction through regular monitoring of teachers. Head teachers' instructional supervision practices includes: checking of teacher's professional documents, teachers class lesson notes, learner notes, teacher's promptness, teacher class attendance registers, classroom observation, moderation of examination papers and marking schemes release of examinations results among others (Sule, Ameh & Egbai, 2015).

These instructional supervision programs are designed to help teachers improve their effectiveness. The supervision of subordinator's performance is a major responsibility of administration. Supervisory function, according to Olembo (1992), include working closely with the teachers to assess pupils' problems and needs, fostering strong group morale, and ensuring effective team work among teachers. The head teacher plays the role of a team builder who is in full control of the school's plan. Instructional oversight is carried out by the head teacher, the deputy head teacher and the head of the department.

Glanz, Shulman, & Sullivan (2006) posit that supervision of instruction is the use of diverse professional methods to enhance teacher's instruction to learners to bring out the desired change in learning. When supervision is done in an environment of shared trust, it results to a better progressive life for teachers' and learners and therefore translate to good academic performance. In the USA school heads take their accountability of instructional supervision seriously by use class visitation, class observation and lesson observation (Okumbe 2007). This practice is a crucial tool where the head teacher meets, and share concerns affecting teaching and learning in the classroom and provide feedback on the effectiveness of the teachers. According to Okumbe (2007) the feedback from instructional supervision help the teachers evaluate the teaching methodologies and help to suggest areas of improvement and approaches in areas where some methodologies are found ineffective. Studies done in India, Malaysia and Thailand by Glanz, Shulman, & Sullivan (2006) on instructional supervision revealed that supervision was used as a way to regulate and monitor teaching and learning process. A similar study done by Yunita (2015) on the role of head teachers' instructional supervision at schools in Indonesia found out that there is a strong and positive relationship between instructional supervision and learner outcomes.

Ngui (2023) argue that instructional supervision enhance learning is a mediating influence on teachers, curriculum instruction which lead to high performance among learners, some of the ways in which head teachers implement instructional supervision include, checking of pupils' exercise books and pupils', lesson observation classroom visits checking teacher's professional documents and Monitoring of educational standards in schools among

others. They help in detecting if there is a problem in order to assist the teacher and learners in improving general academic performance. Ngui (2023) further asserts that instructional supervision is effective in implementation of academic programmes in schools.

In the wake of CBC dispensation, the instructional supervisory role of the head teacher, although well clarified by school assessment procedures has been confounded by challenges (Hipolite, 2019). The instructional supervisory practices require a lot of time, they are very diverse and most of them are quite overwhelming to the head teacher. The head teacher need to be well versed with knowledge to carry out this activity. Head teachers in primary schools have reported that they experienced challenges in handling instructional supervision due to many learners in classrooms, teachers' workload which do not allow them sufficient time to prepare professional documents. Competency Based Curriculum requires learning to be hands-on, that means that each learner should be involved in the learning activities and observed regularly which implies supervision by heartaches is really intensive making it hard for effective implementation of implementation (Hipolite, 2019).

The CBC learning experiences are new phenomenon to the head teachers and that has comprised the implementation of CBC in primary schools. There has been inadequate sensitization of the head teachers and staff involved in implementation of CBC about the new mode of assessment, structural modification of content delivery, pedagogy and assessment. All these have made it hard for meaningful supervision of CBC implementation (Marion, 2020). Marion (2020) further asserts that instructional supervision really determines to a large extend the implementation of CBC This study was conducted to establish if instructional supervision practices has any effect on implementation of Competency based curriculum in Kenya and Katangi Zone in particular.

3 Research Methodology

3.1 Research Design

Mugenda and Mugenda (2010) define a research design as outline that includes the technique to collect, analyze and interpret data. This study will use descriptive survey research design. Descriptive survey is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables (Krosnick, 2018). This design was considered the best method for this study since it will enable the study to collect original data on supervision which is a routine activity in every school. The design enabled the study to accurately describe the practices of the principals' correlation to students' performance.

3.2 Population of the Study

The target population is the entire set of units for which the study data are used to make inferences (Krosnick, 2018). According to the records at Katangi Zonal office, there are 35 primary schools with corresponding number of Head teachers. Therefore, the target population for the study was all the 36 public primary schools', and 316 teachers in primary schools Katangi Zone in Yatta Sub County Machakos County Kenya.

3.3 Sample of the Study

Mugenda and Mugenda (2010) state that the main aim of sampling is to select a few of the elements of a population from which deductions may be drawn. Katangi Zone will be stratified into 7 clusters with their corresponding number of schools. Fifty percent (50%) of the schools in each cluster will be sampled as posited by Hall, Hoard and Rutherford (2006) who propose that a range of 20% to 50% of respondents is a considerable sample size which gives valid results. This study sampled 50% of the teachers and head teachers.

To select the teacher respondents, the study used random sampling method to sample the schools to participate. Once the schools were selected a list of teachers in each school was listed and each teacher assigned a serial number scribbled on a sheet of paper and placed in a basket. The basket was shaken, one paper picked at a time until the desired number of teachers per school were attained. The schools where head teachers were selected were the same schools where the teachers were also selected. The researcher administered instruments to the teachers whose corresponding serial numbers were picked from the basket. Thus, the sample size comprised of 18 headteachers, and 158 teachers.

Table 1: The Sampling Frame and Sampling Matrix

Cluster	No. of Schools	Teacher Population	Sampled Teachers (50%)	Schools' Headteachers (50%)
Kikuyuni	6	58	29	3
Kisaani	6	55	27	3
Mekilingi	5	48	24	3
Yumbuni	6	41	20	3
Malatani	5	39	20	2
Kyua	4	33	17	2
Masaani	4	42	21	2
Less(Pilot sample)	3		8	3
Total	32	316	150	15

Eight (8) teachers and three (3) headteachers participated in the piloting and therefore were not included in the actual study sample. Therefore, the study sample size comprised of 150 teachers and 15 headteachers giving a total of 165 respondents.

3.4 Tools and Techniques Used for Data Collection

Krosnick (2018) states that a research instrument is a tool for assessing, monitoring and recording data. Therefore, the data for this study was collected using questionnaires. The questionnaires were administered to the headteachers and teachers. The questionnaires comprised of closed questions. Close ended questions are easier to administer and are economical to use in terms of time. Questionnaires ensure that information collected is more analytical and there is no limitation of the answers given by the respondents. This study had two categories of questionnaires; the head teachers' and the teachers'

questionnaire each with section A to F which sought information on the effect of headteachers' instructional supervision practices on the implementation Competency Based Curriculum.

3.5 Validity of Instruments

Cohen (2000) argue that validity is the level whereby the research instrument measure what the study intends to measure based on study variables. The researcher tested for content validity by examining the questionnaire items and carrying out comparison to ensure proper coverage of all objectives. Cohen (2000) states that instruments validity is enhanced by involvement of experts to get their opinion. Therefore, expert opinion from the supervisors and other experts in the area of study was used to check on the content validity of the instruments. Their recommendations were incorporated in coming up with the final instruments for data collection.

A pilot study was done to identify vague questions, unclear instructions and insufficient space to write responses. Schools used in the pilot study were exempted from the sampled population. The researcher used results of the pilot study to remove errors from instruments and modify items that were not valid. A pilot study was conducted to determine the accuracy, clarity as well as the suitability of research instruments. According to Mugenda and Mugenda (2010) a pilot study sample size of between 3 to 10% of sample projected for larger parent study is adequate. The sample size for the pilot study was eight (8) teachers three and (3) head teachers from primary schools in Katangi Zone.

3.6 Reliability of Instruments

According to Cohen (2000), reliability refers to a measure of the degree to which a research instrument yields the same results after repeated trials. Reliability of the research instruments was measured using the test retest method; this was done by administering the same questionnaire twice to the pilot sample of three (3) primary schools head teachers and eight (8) teachers in Katangi Zone within a duration of two weeks. Reliability coefficient was computed in order to establish the extent to which the contents of the questionnaire consistently elicited the same responses every time they were administered. The correlation of results obtained was done by using Pearson moment correlation formula in measuring the internal consistency of the tools through getting a correlation efficient from the two tests. Pearson moment correlation formula for determining the internal consistency of the research instrument was defined by the following equation;

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{[N\sum(x)^2 - (\sum x)^2][N\sum(y)^2 - (\sum y)^2]}}$$

Where: r- Pearson product-moment correlation coefficient.

X- Results from the first test

Y- Results from the second test

N- Number of observations

The values that ranged from 0 to 1 in where the increase in value shows increase on the reliability. Mugenda and Mugenda (2010) suggest that 0.7 coefficient value or higher shows that the tools are highly reliable.

3.7 Procedure of Data Collection

The researcher first obtained an introduction letter from the Board of post graduate studies (BPS) IGNOU and a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) to enable the researcher prove to the relevant authorities what the study is intended to do. The researcher obtained authority to collect data in Katangi Zone from deputy County Commissioner and sub county director of education in Yatta Sub-County respectively before proceeding to visit the selected primary schools. Permission to conduct the study in the sampled public primary schools was further obtained from the respective head teachers.

Questionnaires were administered and gathered around the same time. A drop-and-collect method was used where the researcher dropped the questionnaire to the sampled respondent, explained the importance of the study, and a guide on how to fill the questionnaires and collect the questionnaire. The respondents were then given adequate time to complete the questionnaires. Maximum return of research instrument was ensured by maintaining direct contact of the questionnaires and the respondents.

3.8 Procedure of Data Analysis

Data analysis is the process of bringing meaning to raw data collected Mugenda and Mugenda, (2010). After the data was collected, cross-examination was conducted to ascertain their accuracy, competences and identify those items that were wrongly responded to, spelling mistakes and blank spaces. The information in the questionnaires was be coded before being entered into the Statistical Package for Social Sciences (SPSS) version 26.0 program for statistical analysis. Data analysis was done by use of both descriptive and inferential statistics. Descriptive statistics included mean frequency tables and standard deviations. Inferential statistics were used to analyze the data which was presented using a table of model summary, coefficient of determination, and correlation analysis matrix. Qualitative data from focus group discussion and opinions were transcribed into themes and reported in narratives.

4 Data Analysis and Interpretation

4.1 Effect of Head teachers' Instructional supervision practices on implementation of Competency based Curriculum (CBC)

The third objective of the study was to establish the effect Head teachers' Instructional supervision practices on implementation of Competency based Curriculum (CBC) in Primary Schools in Katangi Zone, Yatta Sub-County Machakos County Kenya. Data was collected through a questionnaire for both headteachers and teachers. The analysis is presented Tables 2.

Table 2: Headteachers responses on effect of Head teachers' Instructional supervision practices on implementation of Competency based Curriculum (CBC).

Statements	Strongly agree		Agree		Disagree		Strongly Disagree		Total		Mean	Standard Deviation
	F	%	F	%	F	%	F	%	F	%		
Teachers in my school prepare and use professional documents in the implementation of CBC.	9	60	6	40	0	0	0	0	15	100	3.70	0.2
I check class registers and pupils' progressive records to ensure they comply to CBC requirements	10	66.7	5	33.3	0	0	0	0	15	100	3.80	0.28
I give constructive and useful feedback after the supervision.	9	60	4	26.7	2	13.3	0	0	15	100	3.68	0.220
I conduct lesson observation on teachers from time to time.	4	26.7	10	66.7	1	6.7	0	0	15	100	3.66	0.21
Average Means											3.71	0.228

The results in Table 2 show that the average mean of the head teachers' responses was 3.71 and the average standard deviation is 0.228. The high mean of 3.40 is a demonstration that most of the headteachers strongly agreed with the statement that Instructional supervision practices affect implementation of Competency based Curriculum (CBC) since it is skewed towards 4 on the Likert scale. On the other hand, a low average standard deviation of 0.228 implies that there was high convergence of opinion. Specifically, 60% of the headteachers strongly agreed while 40% agreed that teachers in their schools prepare and use professional documents in the implementation of CBC. No headteacher negated the statement by either disagreeing or strongly disagreeing.

The majority of headteachers represented by 66.7% strongly agreed and 33.3 % agreed that they check class registers and pupils' progressive records to ensure that teachers in their schools comply to CBC requirements. No other opinion was given by the respondents on that Likert statement.

Majority of the headteachers represented by 60% % Strongly agreed while the 33.3% agreed that they give constructive and useful feedback to teachers after the supervision of classes. Only 13.3% of the headteachers said they give constructive and useful feedback to teachers after the supervision of classes. Finally, 66.7% and 26.7 % of headteachers strongly agreed and agreed respectively that they give constructive and useful feedback to teachers after the supervision of classes. However, 6.7 % of the headteachers disagreed that they give constructive and useful feedback to teachers after the supervision of classes.

Table 3: Teachers responses on effect of Head teachers' Instructional supervision practices on implementation of Competency based Curriculum (CBC).

Statements	Strongly agree		Agree		Disagree		Strongly Disagree		Total		Mean	Standard Deviation
	F	%	F	%	F	%	F	%	F	%		
I prepare and use professional documents in the implementation of CBC.	100	66.7	40	26.7	10	6.7	0	0	150	100	3.88	0.22
The headteacher check class registers and pupils' progressive records to ensure they comply to CBC requirements	80	53.3	60	40	10	6.7	0	0	150	100	3.78	0.25
The headteacher give constructive and useful feedback after the supervision.	75	50	70	46.7	5	3.3	0	0	150	100	3.65	0.26
The headteacher conduct lesson observation on teachers from time to time.	60	40	65	43.3	15	10	0	0	150	100	3.64	0.28
Average Means											3.74	0.253

Information shown in Table 3 indicate that the average means for the teacher's responses was 3.64 while the average standard deviation was 0.253. An average mean of 3.74 shows that majority of the teachers agreed with the statements that Instructional supervision practices affect implementation of Competency based Curriculum (CBC) since it is skewed towards agree on the Likert scale. On the other hand, a low standard deviation of 0.253 is an indication that there was low variation in responses tending towards high convergence of opinions.

Specifically, 66.7% of teachers strongly agreed and 26.7 % agreed that they prepare and use professional documents in the implementation of CBC. However, 6.7% disagreed with the statement. Further, majority of the teachers, 53.3% strongly agreed and 40 % agreed that the headteacher check class registers and pupils' progressive records to ensure they comply to CBC requirements while only 6.7% disagreed the headteacher check class registers and pupils' progressive records to ensure they comply to CBC requirements.

Majority of the teachers strongly agreed that the headteacher give constructive and useful feedback after the supervision as indicated by 50 % who agreed and 46.7% who strongly agreed. However, 3.3% disagreed that the headteacher give constructive and useful feedback after the supervision.

Most of the teachers agreed that they the headteacher conduct lesson observation on teachers from time to time as demonstrated by 43.3% and 10 % disagreed that the headteacher conduct lesson observation on teachers from time to time. It is confirmed from the results that Head teachers' Instructional

supervision practices on implementation of Competency based Curriculum (CBC). Integration of Headteachers and teachers views on effect of teacher training on implementation of CBC the data from headteachers and teachers on effect Instructional supervision practices affect implementation of Competency based Curriculum (CBC) in implementation of CBC was integrated and presented in Table 4

Table 4: Headteachers and teachers' integration of effect of H/T Instructional supervision practices in implementation of CBC.

Independent Variable	Average of Means				Average of Standard Deviations			
	Headteachers	Teachers	Total	Mean	Headteachers	Teachers	Total	Mean
Head teachers' Instructional supervision	3.71	3.74	7.45	3.73	0.228	0.253	0.481	0.241

The results presented Table 4 show that the average means for the respondents was 3.73 while the average standard deviation was 0.241. An average mean of 3.73 indicate that respondents agreed with the statements since it is skewed towards strongly Agree (4.0) on the Likert scale. On the other hand, a low standard deviation of 0.241 is an indication that there was low variation in responses tending towards high convergence of opinions. The findings indicate convergence on the opinion that Head teachers' Instructional supervision practices on implementation of Competency based Curriculum was very crucial in implementation of CBC in primary schools in Katangi Zone of Yatta subcounty Kenya

4.2 Effectiveness of Head teachers' Instructional supervision practices in implementation of Competency based Curriculum (CBC)

The study further sought to establish from the headteachers Effectiveness of Head teachers' Instructional supervision in implementation of Competency based Curriculum (CBC).. The results are presented in Table 5.

Table 5 Headteachers responses on Effectiveness of Head teachers' Instructional supervision practices in implementation Competency Based Curriculum

		Frequency	Percent
Head teachers' Instructional supervision	Highly effective	12	80
	Effective	3	20
	Less effective	0	0
	Not effective	0	0
	Total	15	100.0

The findings shown in Table 5 reveal that Majority headteachers 80% indicated that Head teachers' Instructional supervision in implementation of Competency based Curriculum (CBC) was highly effective in implementing Competency Based Curriculum while 20 % indicated that Head teachers' Instructional supervision was effective in implementing Competency Based Curriculum. The outcome shows that Head teachers' Instructional supervision was a crucial factor in the implementation of CBC.

Table 6: Teachers responses on extend of effectiveness of Head teachers' Instructional supervision practices in implementation Competency Based Curriculum

		Frequency	Percent
Head teachers' Instructional supervision	Highly effective	130	86.7
	Effective	20	13.3
	Less effective	0	0
	Not effective	0	0
	Total	150	100.0

The data captured in Table 6 shows that the majority of the teachers at 86.7% indicated that Head teachers' Instructional supervision in implementation of Competency based Curriculum (CBC) while only 13.3 % of the teachers revealed that Head teachers' Instructional supervision was effective in implementing Competency Based Curriculum.

4.3 Headteachers opinions on the extent to which Head teachers' Instructional supervision practices was in implementation of Competency Based Curriculum

The study further sought to establish from the headteachers the extent to which Head teachers' Instructional supervision was in the implementation of Competency Based Curriculum. The results are presented in Table 7.

Table 7: Headteachers responses on effectiveness of Head teachers' Instructional supervision practices in implementing Competency Based Curriculum

		Frequency	Percent
Head teachers' Instructional supervision	Great extent	12	80
	Moderate extent	3	20
	Less extent	0	0
	Total	15	100.0

Results in Table 7 reveal that Majority headteachers represented by 80% indicated that Head Instructional supervision was to a great extent effective in implementing Competency Based Curriculum while 20 % indicated that Head teachers' Instructional supervision was of moderate extent in implementing Competency Based Curriculum. The outcome shows that Head teachers' Instructional supervision a was a critical factor in the implementation of CBC.

Table 8: Teachers response on the effectiveness of Head teachers' Instructional supervision practices in implementing Competency Based Curriculum

		Frequency	Percent
Head teachers' Instructional supervision	Great extent	100	66.7
	Moderate extent	50	33.3
	Less extent	0	0
	Total	150	100.0

The data shown in Table 8 indicate that the majority of the teachers at 100 (66.7%) indicated that Head teachers' Instructional supervision was to a great extent effective in the implementing Competency Based Curriculum while 33.3 % of the teachers indicated that Head teachers' Instructional supervision was to moderate extent effective in implementing Competency Based Curriculum.

4.4 Inferential Statistics and Testing of hypothesis

Correlation Analysis for effect of Head teachers' Instructional supervision practices in implementing Competency Based Curriculum

Pearson's correlation was used to examine the link between the two sets of data descriptive data and inferential data. Each factor's statistics were computed as a single variable consisting of the study variables. The means of independent variables were correlated with Mean of CBC implementation parameters to establish the degree of confidence at 95% confidence level.

A positive Pearson correlation coefficient indicates a direct or positive association, while a negative one indicates the opposite. Conversely, a negative coefficient indicates a weak or inverse connection. One can classify the strength of a connection as weak (0 - 0.29), moderate (0.30 - 0.49), strong (0.50 - 0.69), or extremely strong (0.7+). Tables 9 and Table 10 below show the adjustment.

Table 9: Correlation analysis Matrix from the Headteachers perspective

Independent variable	Correlation output	Implementation of Competency based Curriculum
Head teachers' Instructional supervision practices	Pearson Correlation	0.817
	*Sig. (2-tailed)	0.015
	N	15

*Correlation is significant at the 0.05 level (2-tailed)

As depicted in the correlation matrix, the Instructional supervision practices affect implementation of Competency based Curriculum (CBC) had a strong positive correlation with implementation of Competency based Curriculum ($r = 0.817$, $p = 0.015$). The correlation was statistically significant since the P value (0.015) was less than 0.05 (significant level).

Table 10: Correlation analysis Matrix from the Teacher's perspective

Independent variable	Correlation output	Implementation of Competency based Curriculum
Head teachers' Instructional supervision practices	Pearson Correlation	0.820
	*Sig. (2-tailed)	0.013
	N	150

*Correlation is significant at the 0.05 level (2-tailed)

The data presented in Table 10 shows that there is a strong positive correlation between headteachers responses on Head teachers' Instructional supervision practices implementation of CBC ($r = 0.820$). The correlation was statistically significant since the p-value of 0.013 was less than the significant level of 0.05.

A summary of correlation and significance analysis for both headteachers and teachers is presented in Table 11 below.

Table 11: Summary of Correlation and significance Analysis

Independent variable	R Values				Significance levels on dependent variable			
	Headteachers (r)	Teachers (r)	Total	Mean	headteachers	Teachers	Total	Mean
Head teachers' Instructional supervision practices	0.817	0.820	1.637	0.819	0.015	0.013	0.028	0.014

The results presented in Table 11 show that the integrated result for headteachers' and teachers' responses on effect of Head teachers' Instructional supervision on the implementation of Competency Based Curriculum had a strong positive correlation of ($r = 0.819$). The correlation was statistically significant at p-value of ($p = 0.014$) which was less than the significant level of 0.05. It can be inferred from the analysis that Head teachers' Instructional supervision practices had a significant predictive effect on the implementation of Competency Based Curriculum. This therefore reveals that Head teachers' Instructional supervision is a crucial factor in implementation of CBC.

To uphold or reject the null hypothesis was based on the levels of significance. Statistically the null hypothesis is rejected if the level of significance was found to be greater than 0.05 while the null hypothesis is upheld if the level of significance is less than 0.05. Results in Table 11 show that there was statistically significant relationship ($r = 0.819$) significant at (0.014) between headteachers instructional supervision and implementation of Competency Based Curriculum. Therefore, the null hypothesis which stated that there is no statistically significant relationship between Head teachers' Instructional supervision and the implementation Competency-Based Curriculum in Primary Schools in Katangi Zone, Yatta Sub County Machakos County Kenya was

rejected at 0.05 significance level. Therefore, the results reveal that there is statistically significant relationship between Head teachers' Instructional supervision practices and the implementation Competency-Based Curriculum in Primary Schools in Katangi Zone, Yatta Sub County Machakos County Kenya.

4.5 Regression Analysis

A correlation coefficient is a statistical measure of how closely two variables are related to one another. Therefore, regression analysis was performed to establish the intensity and strength of the correlation. This is due to the fact that correlation does not show a causal association between study variables. The study's dependent and independent variables were each subjected to a series of multiple regression analyses. The purpose of this research was to isolate the independent effect of the independent variable on the dependent variable.

Multiple regression analysis was then used to show degree of association independent and dependent variables. R-squared values show that the independent variable has a larger impact on the dependent variable. The range of r-square values is 0 to 1, with 1 representing a perfect match and 0 indicating that no association at all. Table 12 displays the results of the analysis for combined effect of both headteachers and teachers.

Model Analysis

Table 12: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Headteachers and teachers	0.819	0.7974	0.670	1.32411

a. Predictors: (Constant) Head teachers' Instructional supervision practices

Findings presented in Table 12, of the results of the model summary report for both headteachers and teachers show that the independent variables (adequacy of instructional resources) had a strongly positive ($R = 0.819$) because R square was not equal to zero ($R^2 \neq 0$) but within 0 and 1. An adjusted R square of 0.67 indicates that 67% of the variation in the implementation of Competence Based Curriculum in public primary schools in Katangi Zone in Yatta Subcounty County could be explained by Head teachers' Instructional supervision.

This implies that the remaining 33% could be accounted for other factors not captured by this study. This shows that there are other factors not studied in this study that also affect the implementation of CBC which account for the remaining 33%.

5 Summary, Conclusion and Recommendations

5.1 Summary of Study Findings

The findings of the descriptive statistics captured in Tables 2 and 3 revealed that the headteachers and teachers strongly agreed and agreed that teachers prepare and use professional documents in the implementation of CBC. The majority of participants agreed and strongly agreed that headteachers check class registers and pupils' records to ensure they comply to CBC requirements. Majority of both headteachers and teachers agreed and strongly agreed that they give constructive and useful feedback after the supervision and also headteachers conduct lesson observation on teachers from time to time to ensure implementation of CBC in their schools.

The results in tables 5 show that, the average mean of the both head teachers' and teachers' responses were high 3.73 while the average standard were low 0.241 indicating high convergence of opinions on the important role played by headteacher supervisory practices in the implementation Competency-Based Curriculum.

The findings show that shown in Table 5 and 6 reveal that majority headteachers and teachers indicated that headteacher supervisory practices was highly effective in implementing Competency Based Curriculum. Findings in Table 7 and 8 indicate that majority the respondents indicated that headteacher supervisory practices was to a great extent effective in implementing Competency Based Curriculum. The outcome shows that headteacher supervisory practices was a substantial factor in the implementation of CBC.

Findings of this study mirror on the work of Olembo (1992) who assert that instructional supervision programs are designed to help teachers improve their effectiveness and include working closely with the teachers to assess pupils' problems and needs, fostering strong group morale, and ensuring effective team work among teachers. The head teacher plays the role of a team builder who is in full control of the school's plan.

Okumbe (2007) also support the findings of this study by arguing that headteachers supervisory practices practice is a crucial tool where the head teacher meets and share concerns affecting teaching and learning in the classroom and provide feedback on the effectiveness of the teachers. The feedback from instructional supervision supports the teachers appraise the teaching methodologies and help to suggest areas of improvement and approaches in areas where some methodologies are found ineffective. Headteachers Instructional supervision is used as a way to control and monitor teaching and learning process.

The findings of the correlation analysis revealed a positive and significant correlation between the both teachers and headteachers' opinions on effectiveness of teacher training in the implementation of CBC ($r = 0.819$, $p = 0.014$) as shown in Table 11. This implies that an increase in teacher training opportunities for teachers leads to an increased ability to implement CBC.

The results of this study are supported by works of Yunita (2015) who posit that there is a strong and positive relationship between instructional supervision and learner outcomes. Instructional supervision really determines to a large extent the implementation of CBC.

5.2 Implication and Conclusions of the Study

Based on the findings the study made the following conclusions;

There was a strong positive relationship between of headteachers' instructional supervision practices and implementation of CBC.

The headteachers' instructional supervision practices had a significant predictive power on the implementation of CBC.

There is statistically significant relationship between of headteachers instructional supervision practices and the implementation Competency-Based Curriculum in public Primary Schools in Katangi Zone, Yatta Sub-County Machakos County Kenya. The null hypothesis was rejected.

The headteachers' instructional supervision practices affect the implementation of Competency Based Curriculum in public Primary Schools in Katangi Zone, Yatta Sub-County Machakos County Kenya.

The implementation of CBC can be boosted through improvement and consistent headteachers' instructional supervision practices in the schools.

5.3 Recommendations of the Study

Based on the findings of this study, the researcher made the following recommendations;

The headteachers should take a proactive role in instructional supervision.

The teachers Service Commission and Ministry of Education should come enact policies and guidelines that instructional supervision be made compulsory part of headteachers responsibility

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