

TEACHERS' MENTORSHIP AS A WAY OF IMPLEMENTING COMPETENCY-BASED EDUCATION IN KIAMBU COUNTY, KENYA

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ABSTRACT

Competency-Based Education (CBE) implementation continues to face challenges with regard to the role teachers' training play in it with different levels of preparedness. This study will focus on the role of teachers' mentorship on Competency Based Education implementation in Kiambu county, Kenya. The study objective was to examine the role of teachers' mentorship in competency-based curriculum implementation on Kiambu County. The study is anchored on and Social Learning Theory. The study adopted descriptive survey research design. Purposive and stratified random sampling techniques were adopted. The study will target 320 respondents which will include the following; head teachers, grade 1–6 teachers, Curriculum Support Officers (CSOs), Sub-County Curriculum Officers (SCCOs), and parents of Learners in Grades 1–6. The study will have a sample size of 178. In the collection of quantitative and qualitative data, questionnaires and interview guides will be used. Pilot study was done in Nairobi County among 18 respondents. Content, face and intent validity were applied. Cronbach Alpha will be adopted to test reliability. Statistical Package for Social Sciences (SPSS) version 21.0 will used to analyze the data. Tables, charts and graphs will be used to present the data. The study enhanced informed consent, confidentiality and anonymity in the collection and processing of data. The findings of the study revealed that teacher mentorship was positively and significantly related to the extent of implementation of CBE in Kiambu County. The study recommended that there is need for a better teacher training approaches to improve delivery of CBE. This underscores the importance of structured mentorship to build teacher self-efficacy; engagement with community/stakeholder for resource and community support; innovation, creative pedagogy, use of ICT; and tracking of learners' progress and competence development. The study suggests that mentoring structures be institutionalized, that parents and other stakeholders be sensitized, that there be investment in ICTs infrastructure and digital literacy, and that there be effective coordination for an inclusive CBE implementation. Training will also have to be sustained, for teachers and other stakeholders, to foster accountability and enhance the effectiveness of CBE delivery.

Key Words: Teachers' Mentorship, Implementing Competency-Based Education

INTRODUCTION

Teachers have powerful influence on student outcomes as major implementers hence education is necessary for economic transformation. Research suggests that teacher development pays off for students, as seen in countries that invest in their teaching workforce such as Finland Singapore and Canada (Salminen & Takala, 2020; Goh & Tan, 2021). Yet some developing countries such as Kenya have difficulties mobilizing resources and limited access to training that frustrates proper curriculum implementation (KICD, 2023; MoE, 2023). Prioritizing professional learning for teachers is the only way to close the gaps and reach the promise of global education targets like sustainable development goal (SDG) four (UNDP, 2020; UNESCO, 2021).

One of the Teacher readiness issues encountered in implementing competency-based Education (CBE) is teacher preparedness, a wide gap in participation for training as a key challenge. As of 2021, just over 50% of teachers have taken CBC training, 40% feel adequately prepared and only 55% feel well trained (KICD, 2021; KNEC, 2022). In Kiambu County, teacher preparedness is 65% but especially so in rural area because of less resources and training levels (TSC, 2023; KICD, 2023). Currently, Kiambu County must be provided with a systematic teacher development model consistent of mentorship, career growth and real work force workshops in addition to benchmarking systems from successful nations such as Finland, Singapore and Rwanda. Towards successful CBC, future policy frameworks must center on teacher development and resources to enable the attaining of student outcomes.

Research by Njiru, W. (2020) examines the preparedness of teachers to implement CBC in Nyandarua North Sub-County public primary schools. The findings underscore high levels of under-training and resource inadequacies concerning a successful CBC among teachers. Curriculum and methods assessment were undermined by this limitation. The research also highlighted shortcomings in teachers' continuous professional development and support systems and therefore it hinders the acceptance of CBC in the region.

Research by Esther, M. (2021) explores teachers' preparedness for CBC in Mombasa County. The findings demonstrate these teachers were not adequately prepared for implementing CBC, mainly as consequence of lack of training and resources. To cite a specific example, the study discovered that out of the teachers' logistic trainings on CBC was provided to only 40% and 60% admitted of having inadequate instructional materials. Curriculum delivery and assessment practices have been victims in turn due to these gaps. Other find that the study also highlighted the gap in teacher continuous professional development and support systems in which critical to the successful implementation of CBC in the region. The outcomes highlight the imperative of further approaches to improving preparedness levels of teachers and roll out of school-based competency curriculum.

Research Grace, M. (2020) investigate how school principals can play their part to ensure successful implementation of CBC. About 65% of head-teachers were poorly trained on CBC leadership resulting in poor policy implementation and teacher help. The study also found that just 45% of schools had sufficient learning resources and at the same time 55% were short of basic materials, which undermines the effectiveness of the curriculum. The findings from this study indicated that schools with good leadership and well laid out teacher mentoring program had higher rates of CBC adoption. Nonetheless, there was a gap in leadership training and stakeholder engagement which calls for more administrative leaders bridging the gap.

Research by Beatrice, O. (2020) examines how teacher professional development affects the standardization of its curriculum. It was revealed that 72% percent of teachers participated at least one CBC training but only 38% were well trained to be effective with the new curriculum. Furthermore, 60% of schools had no planned and continuous professional development, so teachers were not able to respond appropriately with CBC. CBC delivery increased by as much as 25% in schools that trained teachers regularly. Still, to close gaps in frequently mentorship and availability of refreshed training materials the focus on ongoing professional development is necessary to strengthen applications.

Study by Abdi, M. (2020) outlined the different dilemmas affecting the adoption of CBC. The study showed that there was major challenge in the training, with 72% trained insufficiently and 65% schools facing shortages of learning materials. Moreover, 58% of the parents had no information about CBC rules split their support. Efficient interpretation of infrastructure issues were high, with 60% of schools lacking necessary practical learning infrastructure. Only 35% of schools had access to appropriate teacher capacity-building programs, even though the government has tried. Suggestions from study for better CBC implementation include; more teacher training, community sensitization and better resource allocation.

A study by Sarah, O. (2020) looks at the teachers' perceptions on the new CBC framework. 70% of teachers in the study hold a positive position about CBC, were convinced it would lead to better learning outcomes for students; however, 68% showed worries about teacher preparation. Also, 60% of teachers say there are not enough teaching materials and 55% stated that parental involvement in CBC was negligible which hampers its effectiveness. The study underscored a shortfall in ensuring that targeted professional development and community education programs are employed in order to have CBC at its full potential in the area. Therefore, the study seeks to address implementation challenges of CBC by focusing on the effect of teacher training in CBC implementation especially; innovation, assessment, motivation and collaboration with stakeholders.

Teacher training is instrumental in implementing CBC in Kenyan public primary schools especially for teachers' readiness in facing challenges and demands of the new curriculum during implementation. According to Otieno, A (2020), teachers' perceptions of CBC are in part determined by level of their training. Even though few teachers have a positive impression on CBC for contributing to student learning, a considerable sample rated insufficient training as a limitation with regards to its high implementation (Otieno, 2020). But the absence or lack of training often impedes teachers' established capacity to mentor learners as demanded by CBC holistic development through individualized learning path. Teacher mentorship as an aspect of regular development provides the required competences to drive student-centric learning and therefore needs to be for successful implementation of CBC (Mwangi, 2021).

The CBC has been implemented in Kiambu County but it has not been short of challenges and opportunities associated with teacher training and preparedness. Teacher mentorship is a crucial one in terms of proper CBC delivery because it gives the teachers direction on how to maneuver through the intricacies of a new mode of teaching. Research by Ochieng, A. (2020) indicated mentorship to be a primary driver of skills and knowledge necessary to navigate the changes that CBC brings with it. In most of the teachers in Kiambu County, mentorship was discovered to be an effective facilitator with which they were taught the necessity of personalized learning and hence applying practices based on holistic development. Yet there is still a gap when it comes to the actual school-based mentorship systems which has prevented many teachers from fully implementing CBC in our classrooms. Greater support for teachers can be provided to step-up the implementation process with continuous mentoring in a more organized mentorship system.

In conclusion successfully implementing CBC in Kiambu county depends on resolving challenges with respect to teacher mentorship. CBC has great potential to change education, but the adoption of the curriculum into classrooms is contingent upon teachers always being in some form of professional development. This study infer study by Mwangi, M. (2020) that using the learner centered training programs with mentorship, mentorship on collaboration innovation and assessment will go a long way in successfully implementing CBC in Kiambu at scale. Investing in these areas, however, will allow CBC to not only fulfill its competency-based learning mission but deliver a whole student education that trains students for the future challenges ahead of them in Kiambu.

Statement of the Problem

Implementation of CBE in Kiambu County faces a number of challenges. Despite being termed as a transformative educational framework challenges including teacher mentorship constrains have been faced (MoE, 2022). Inconsistent mentorship is among the limitations to effective CBC implementation in Kiambu

County. The ability of teachers in effectively implementing CBC has not been short of challenges which includes ineffective teacher training and development thus creating gaps in delivery, assessment and learner-centered approaches (TSC, 2023).

The quality and consistency of CBC implementation has been undermined mainly due to poor mentorship or inadequate innovative pedagogical strategies (Wanjala, 2021). Lack of mentorship structure resulted in negligent in level of teacher preparedness and curriculum implementation failure. Weak monitoring and evaluation of CBC implementation in Kiambu County have resulted to inconsistent instructional practices thus ineffective curriculum adaptation.

There have been inadequate feedback loops due to ineffective or lack of systematic tracking mechanisms undermining opportunities for continuous development. The strategic role of teacher training in CBC implementation within Kiambu County has not been examined extensively by previous studies. This study aims on examining the role of teacher training by looking into; mentorship in CBC implementation thereby offering recommendations to enhance teacher preparedness and improve curriculum delivery in the county.

LITERATURE REVIEW

Mentorship and Competency-Based Education Implementation

A study by Shu'Aibu, M. (2023) examined how practical, competency-driven training methods of instruction drive results, supported innovation critical thinking and independence of learning. Empirically, research reveals the connection between competency-based learning and students becoming more entrepreneurial based upon a broader social-economic lens to the horizon. This is well supported by findings of the importance to combine practice with theory for learners who have significantly better entrepreneurial skills application in real-life contexts and chances of employment and economic independence.

A study by Luembo, M. (2023) highlighted that supervision is necessary to steer teachers on assigned curricular frameworks and serve as facilitators of good instruction. The findings show that intensive and structured supervision is strongly associated with teachers' preparedness, teaching quality as well as on-curriculum practices. Supervision faces several challenges such as poor supervisor training and supervision resources leading to poor supervision. The publication is a brilliant piece, but does not go deep to engage teachers or learners in finding out that whether instructional supervision is effective or not accurately. More specifically, there is no cross-sectional study design to explore if the results can apply within different kinds of educational settings. To fill these gaps, my study will use a mixed-methods approach with teacher-learner feedbacks and explore regional differences in instructional supervision effectiveness.

Research by Ashiali, H. (2023) identified pertinent problems of lack of training, scarcity of assessment resources and challenges in aligning the traditional assessment processes with the one required for CBC. Having said that, the study has limitation, it is a single school based and so generalization is not possible due to methodology flaws. Furthermore, it lacks a robust theoretical basis to frame the challenge of assessment in place. My study will fill these gaps through using descriptive research design incorporating quantitative data obtained through questionnaires and qualitative insights derived from interview schedules and will be theory-based to provide a comprehensive consideration of CBC assessment preparedness in education.

A study by Mumba, Phiri, Banda, & Zulu (2023) observed change in competency-based doctoral curriculum at the University of Zambia starting off with experiential learning, research skill base and vengeful close supervision gradient. Mentor is the essence of what critical thinking and hands-on competencies are all about by the very nature of implementation with CBC, the study thus provides an insight on mentor role. Although stressing on the mentorship during the doctoral level, it doesn't really replicate that it replicates its way down to lower education levels highly especially in pre-primary and primary. This gap projects out a need for further research on mentor-ship besides its facilitation in CBC at pre-service education levels.

A study by Makmee & Uppamaithichai (2022) results underscore the importance of administrative support, teacher training and mentorship in facilitating successful implementation of CBC. It underscores that better mentorship pathways strengthen teachers capacity in delivering competency-based instruction and on making learning to take place. The study, however centers on administrative structures and fails to provide an examination of the direct teacher effectiveness garnered from mentorship. The gap is a call for more research in respect to systemized mentorship and its significance CBC implementation on classroom level. According to Mohamud Njoroge (2022) in a study of curriculum improvement and institutions performance in Mogadishu, Somali found out that curriculum improvement is dependent of how well the teachers are mentored on implementation.

Study by Shanmugam, Ramanathan & Kumar (2023) investigate the view of teachers at medical colleges in India about Competency-based Medical Education (CBME) curriculum synthesis. The importance of mentorship for successful CBME implementation in the study served to highlight that teachers are in need of support and guidance moving from traditional teaching strategies towards competency-based approaches. That showcased successful mentorship closes the loop of learning the syllabus requirements, skills-acquisition, and promotes reflective practices for all educators. Yet findings from the study show that a lack of formal mentorship programs and limited professional development prevents the effective use of CBME as posited by this study. The gap highlights the necessity for more thorough mentorship models to scaffold institutions moving towards competency-based medical education while my study addresses this within a broader educational context and the roles of mentor in other programs.

A study by Yarbrough & Phillips (2022) perform a concept analysis of peer mentoring in nursing education among the purpose to explore its implications for student development and enhancement of educational outcomes. Research directly explores how peer mentoring builds a learning community where senior students tutor their fellow students, helping in the application bridging knowledge and practice. It is similar to CBC principle of mastery of a skill, peer to peer feedback and never get bored. The analysis underlines the benefits of peer mentoring to cultivate a student learning community, especially in nursing education with high stakes regarding practical competencies and professional conducts. With all that said, the study also details problems including weak implementation and insufficient organizational peer mentoring. That gap informs my study in which the study will talk about more systematic mentoring frameworks, research might develop through looking at peer mentoring, too as it relates to the implementation of CBC in multiple educational settings.

Social Learning Theory

Social learning theory (Bandura, 1963) describes the process of learning through observation, imitation and modeling. Bandura suggested that people can learn new behaviors and information by observing others especially in a social context. He came up with the idea of observational learning, that taught that people not only learn through firsthand experience but also watch the behavior of others and consequences unto others. The theory does not ignore the influence between social settings and interactions in the learning process but stresses the modeling effect of role-models, peers and mass-media on developing behavior.

Social Learning theory suggest that learning takes place in a social context. This is done through observing others perform the behavior thus imitating them. The theory was developed by Albert Bandura in 1963 and is anchored in the belief that children, people do not only learn from direct experience, but by watching how others act and what happen as a consequence of those actions. The theory requires these four elements: attention, retention, reproduction and motivation in order for observation learning to occur. The role of models, peers and social networks in shaping behavior is the central message of importance that this kind of study highlights. Bandura further introduced the idea of self-efficacy- being the degree to which an individual perceives that he/she is capable of completing a task and it consequently affects learning and behavior.

This study on teacher training and its role on implementation of CBC in Kiambu County is related to Social Learning Theory and was that delivery through social interactions or role models can shape acquiring of

knowledge. CBC implementation may be efficiently facilitated among trained teachers via collaborative learning, peer mentoring and role modelling by which competencies and teaching methods from the teachers could well be transferred to the students. Social Learning where teachers watch and learn from more experienced colleagues or mentors in what has been a pivotal element to the integration and enforcement of new educational innovations like CBC. In studying the Social Learning Theory, you might contribute your study with how teacher collaboration and behavior modelled influences successful implementation of CBC in schools.

This study utilizes Social Learning Theory positing the impact of socialization, peer interaction and modelling on teacher behavior. It shows mentorship and collaboration as critical to improving CBC in Kajiado County. When teachers witness their peers using CBC concepts effectively, they are more likely to adopt such tactics in their own classrooms. Only by adding this theory, you could further investigate how social learning, reflective practice and shared learning environments via teachers' training as well as peers boost a culture of innovation for a more effective implementation in Rwanda of Competency-Based Curriculum. It gives you the map for evaluation on how teachers' interactions are helping with CBC implementation in schools.

METHODOLOGY

Research Design

The study adopted descriptive survey research design. The design facilitated gathering of self-reported and factual data on the effects of teacher training on CBC implementation by analyzing mentorship, stakeholder collaboration, innovation and assessment (Creswell & Creswell, 2017). The design adopted both quantitative and qualitative data in assessing teacher preparedness taking into consideration insights from educators and stakeholders thus promoting CBC implementation in Kiambu County.

Target Population

The study targeted teachers and education stakeholders crucial in CBC implementation in Kiambu County. The study targets head teachers, grade 1–6 teachers, Curriculum Support Officers (CSOs), Sub-County Curriculum Officers (SCCOs), and parents of Learners in Grades 1–6. Relevant insights with regard to administrative role in teacher training will be sought from head teachers with grade 1–6 teachers offering their perspective on the level of their preparedness and challenges in CBC implementation. Training programs, mentorship, and policy frameworks aimed at shaping CBC implementation in Kiambu County will require the expertise of curriculum support officers and education officers.

Sampling Technique

The study adopted purposive and stratified random sampling techniques. Purposive sampling aids in selecting key stakeholders involved in CBE implementation in Kiambu County playing crucial role in teacher training including; head teachers and officials from Ministry of Education. The approach acknowledges insights from relevant persons better placed in assessing effectiveness of teacher training in CBE implementation. Stratified random sampling will be adopted in the selection of grade 1–6 teachers and parents thus guaranteeing representation across schools based on diverse characteristics. It is essential as it enables sample to accurately reflect the diversity within the teaching population thus creating a room for comprehensive analysis on teacher training role in CBE implementation in Kiambu County.

Sample Size

The sample size will be determined at 95% level of confidence level using the Yamane (1967) formula indicated below;

$$n = \frac{N}{1 + N(e^2)}$$

Where:

n = sample size,

N = Population size (320)

e = margin of error set at 5% (95% confidence level)

$$n = \frac{320}{1 + 320(0.05^2)}$$

$$n = \frac{320}{1 + 320(0.0025)}$$

$$n = \frac{320}{1 + 0.8}$$

$$n = \frac{320}{1.8}$$

$$n = 177.78$$

The sample size was 178.

Data Analysis and Presentation

Cleaning, coding, and preparing collected data for analysis starts off the process. Likert scales was adopted in converting closed-ended survey questions into numerical codes scaled from 1 to 5. Statistical Package for the Social Sciences (SPSS) version 21.0 aided in analyzing the data. Demographics were presented using descriptive statistics whereas inferential statistics were used to analyze the link between teacher training and CBE implementation by employing multiple regression. Multiple regression model was used to analyze mentorship, stakeholder collaboration, innovation, and assessment on CBE implementation with addition of table, graphs and charts to present findings.

Regression Model

The study adopted a multiple regression model aiding the assessment of the relationship between teacher training and the implementation of the CBC in Kiambu County. The model aided in showing how mentorship, collaboration, innovation, and assessment affect CBC implementation. Regression model will determine the effect and role of teacher enlightenment on efficiency in CBC implementation, where the coefficient tells how training quality or frequency changes affect the results and p-values tell if that is of significant weight.

The regression equation is given as:

$$Y = \beta_0 + \beta_1 X_1 + e_1$$

Where;

Y = Implementation of CBC

β_0 = Intercept

X_1 = Mentorship

β_1 = Regression coefficient

e_1 = Error Term

RESULTS

Role in CBC Implementation

The study sought to understand the functions performed by various stakeholders in the implementation of CBE as it is essential for evaluating the effectiveness of the role of teacher training. The study categorized respondents according to their involvement in CBE processes in Kiambu County. These roles reflect both

institutional and community-level engagement, aligned with the principles of participatory development. Table 1 presents findings.

Table 1: Role in CBC Implementation

Role in CBC implementation	Frequency	Percentage
Headteacher	28	17.8
Grade 1-6 teacher	89	56.7
Parent	32	20.4
Ministry of education official	5	3.2
Others	3	1.9
Total	157	100

Source: Field Data (2025)

Table 1 indicate that 28 respondents (17.8%) were headteachers, 89 respondents (56.7%) were grade 1-6 teachers, 32 respondents (20.4%) were parents, 5 respondents (3.2%) were MOE officials while 3 respondents (1.9%) had other contributions. This distribution reflects a strong representation from all stakeholders, which aligns with the participatory approach of the CBC implementation in Kiambu County. Their involvement is essential in identifying areas needing improvement and ensuring successful implementation of CBC. The presence of institutional actors, though smaller in number, provides insight into policy-level oversight. Together, these groups offer a holistic understanding of how study objectives affect CBC implementation across different layers of education framework.

Descriptive Statistics

Teacher Mentorship and Implementation of Competency-Based Education

Objective one of the study was to examine the effect of teacher mentorship on the implementation of the CBE in Kiambu County, Kenya. Respondents were required to express their degree of agreement with several statements related to teacher mentorship using a five-point Likert scale: 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), 5 (Strongly Agree). Table 4.2 presents findings.

Table 2: Descriptive Statistics on Teacher Mentorship

Statements	SD	D	N	A	SA	Mean	Std. Dev.
I receive adequate mentorship from senior 5 teachers and education officers	(3.2%)	12 (7.6%)	10 (6.4%)	90 (57.3%)	40 (25.5%)	3.94	0.96
Teacher mentorship has contributed to better 5 learning outcomes in CBC	(3.2%)	17 (10.8%)	15 (9.6%)	90 (57.3%)	30 (19.1%)	3.78	0.97
There is a well-structured mentorship program 7 in my school	(4.5%)	15 (9.6%)	20 (12.7%)	95 (60.5%)	20 (12.7%)	3.68	0.97
Total						3.80	0.97

Source: Field Data (2025)

Table 2 presented that there is a positive relationship between teacher mentorship practices and the implementation of CBC in Kiambu County. Respondents who agreed that they receive adequate mentorship from senior teachers and education officers were 90 (57.3%), those who strongly agreed were 40 (25.5%) reflecting strong confidence in mentorship support, neutral were 10 (6.4%) suggesting some uncertainty or lack of exposure to mentorship, those who disagreed were 12 (7.6%) while those who strongly disagreed were 5 (3.2%). This item yielded a mean of 3.94, indicating a relatively strong agreement that teachers receive adequate mentorship from senior teachers and education officers.

When asked whether teacher mentorship has contributed to better learning outcomes in CBC, respondents who agreed were 90 (57.3%), those who strongly agreed were 30 (19.1%) indicating strong support for its

positive influence, neutral were 15 (9.6%), those who disagreed were 17 (10.8%) suggesting some uncertainty in linking mentorship directly to outcomes, while those who strongly disagreed were 5 (3.2%). This item recorded a mean of 3.78, suggesting moderate to strong agreement that teacher mentorship contributes to improved learning outcomes in CBC.

Respondents who agreed that there is a well-structured mentorship program in their school, were 95 (60.5%), those who strongly agreed were 20 (12.7%) reflecting considerable support for the presence of such programs, neutral were 20 (12.7%) suggesting some uncertainty or variability in program availability, those who disagreed were 15 (9.6%) while those who strongly disagreed were 7 (4.5%). This item had a mean of 3.68, indicating moderate agreement on the existence of a well-structured mentorship program in schools.

The 3.80 mean suggests that respondents generally agreed that mentoring is significant for CBE execution and the 0.97 standard deviation suggests moderate dispersion implying the majority agreed, though there was some degree of disagreement. These results demonstrate that mentorship is perceived as a valuable support mechanism, though the relatively lower agreement on the existence of structured mentorship programs highlights a gap in formalizing such initiatives. Strengthening structured mentorship frameworks could enhance teacher preparedness and improve consistency in CBC implementation across schools in Kiambu County. These are consistent with Shu'Aibu (2023) who found that practical experiences and competently driven methods of training enhance innovation, critical thinking and independent learning. The research confirmed the correlation between competence-based learning and acquiring entrepreneurial competences and explained that on learners who have combined acquired theoretical knowledge with practical experience show a more applied behavior of the studied entrepreneurial competences in their real life, better opportunities for employment and greater independence on the economy.

To complement these findings, the study explored the extent to which mentorship had improved teachers' ability to implement CBE in the classroom. Results indicated that mentorship plays a significant role in enhancing teachers' ability to implement CBC. Respondents who reported no extent were 10 (6.4%), little extent were 22 (14.0%), some extent, were 78 respondents (49.7%) while very great extent were 47 respondents (29.9%). The findings show that mentorship contributed positively to their capacity to deliver CBC. These findings suggest that mentorship provides an important avenue for professional growth, peer learning, and pedagogical refinement. Teachers benefit from the opportunity to consult more experienced colleagues, receive guidance on lesson planning, and adapt new approaches aligned with CBC principles. However, the presence of teachers who reported only minimal or no benefit indicates that mentorship opportunities may not be consistently structured or equally accessible across schools. These findings are consistent with Ashiali (2023), who found that poor training, insufficient resources and divergence from conventional processes stymie effective CBC assessment in Kenyan schools. Overall, these findings confirm that mentorship is widely seen as a facilitator of effective CBC implementation. To maximize its impact, mentorship should be institutionalized, with clear frameworks that ensure regular, structured, and inclusive support for all teachers.

Respondents were additionally asked to state the specific forms of mentorship they found most helpful. The results showed that 24 respondents (15.3%) cited WhatsApp and YouTube digital mentorship, 54 respondents (34.4%) cited collaborative professional development while 79 respondents (50.3%) cited comprehensive mentorship and peer learning. This implies that a small number of teachers used digital mentorship platforms i.e., WhatsApp and YouTube, a moderate number engaged in collaborative professional development, and the greatest number participated in full mentorship and peer learning, suggesting that peer support and ongoing mentorship are the most appreciated strategies for supporting the enhancement of CBE delivery. These results support Yarbrough & Phillips (2022) who demonstrated that peer mentoring promotes communities of learners to bridge knowledge and practice, even though implementation challenges and supports continue. Similarly, collaborative professional development has been shown to foster career growth through shared

inquiry and learning among peers, reinforcing the role of mentorship in effective CBC implementation. For deeper insight into these trends of the quantitative findings, a thematic analysis was conducted, and respondents shared reflections on the mentorship support they had received. Their narratives highlight both the strengths and gaps in CBC-related mentorship.

Many teachers emphasized the importance of peer-based mentorship, where experienced colleagues guided and supported them. One teacher explained that *“the peer mentorship program in our school really helped me apply CBC practically. I could consult a more experienced teacher any time.”* This response underscores how interpersonal guidance fosters confidence and real-time problem-solving, especially for those unfamiliar with CBC methodologies. Others appreciated collaborative professional development, where workshops and group learning environments offered clarity and confidence. One respondent noted, *“joint workshops gave us the chance to learn from each other. I became more confident in planning learner-centered activities after group training sessions.”* One teacher stated, *“I usually watch CBC-related content on YouTube and share tips with colleagues on WhatsApp. It's not formal, but it's very helpful.”* While this suggests adaptability and initiative, it also reflects gaps in formal support systems that lead teachers to seek alternative learning avenues.

These opportunities seem to foster instructional skills and mutuality of accountability among peers. This is consistent with Makmee & Uppamaithichai (2022), who highlighted that administrative support, teacher training, and mentoring are essential in the success of CBC implementation when strong mentorship channels improve teacher capability to offer competency-based instruction. Nevertheless, their study was conducted primarily at the administrative level and did not explicitly measure teacher efficacy through mentorship, underscoring a need for additional exploration on systematized mentoring and its influence on CBC in classroom settings.

Implementation of Competency-Based Education

The study further sought to measure the level of implementation of the CBE in Kiambu County, which was the dependent variable. Respondents were required to indicate their degree of agreement with several statements related to the extent of CBC implementation, such as the adequacy of curriculum delivery, availability of learning resources, teacher preparedness, learner engagement, and stakeholder participation. Responses were rated on a five-point Likert scale: where 1 (Strongly Disagree), 2 (Disagree), 3 (Neutral), 4 (Agree), and 5 (Strongly Agree). Table 3 presents findings.

Table 3: Descriptive Statistics on Implementation of CBC

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)	Mean	Std. Dev
I have received adequate training that enables me to implement the Competency-Based Curriculum effectively	7 (4.5%)	18 (11.5%)	22 (14.0%)	75 (47.8%)	35 (22.3%)	3.74	0.97
I confidently use CBC assessment methods to evaluate learner competencies and track progress	6 (3.8%)	20 (12.7%)	23 (14.6%)	76 (48.4%)	32 (20.4%)	3.72	0.95
There are sufficient learning resources in my school to support effective CBC instruction	8 (5.1%)	22 (14.0%)	26 (16.6%)	72 (45.9%)	29 (18.5%)	3.71	0.98
I apply learner-centered instructional strategies that actively engage students in CBC learning activities	5 (3.2%)	15 (9.6%)	20 (12.7%)	78 (49.7%)	39 (24.8%)	3.80	0.94
Total Mean and SD						3.74	0.96

Source: Field Data (2025)

Table 3 showed that respondents generally agreed that implementation of the CBE is taking place in Kiambu County, though some areas reflect variation in experiences. When asked whether they had received adequate training that enables them to implement CBC effectively, 47.8% (75) of respondents agreed and 22.3% (35)

strongly agreed reflecting moderate confidence in their preparedness. Meanwhile, 14.0% (22) were neutral indicating some uncertainty or limited exposure to training, 11.5% (18) disagreed, and 4.5% (7) strongly disagreed. This item recorded a mean of 3.74 and a standard deviation of 0.97, indicating that teachers moderately agree that they have received adequate training, though some report uncertainty or lack of sufficient preparation.

On the item regarding confidence in using CBC assessment methods to evaluate learner competencies and track progress, 48.4% (76) agreed and 20.4% (32) strongly agreed reflecting overall confidence in applying these strategies. Only 14.6% (23) were neutral indicating some uncertainty, while 12.7% (20) disagreed and 3.8% (6) strongly disagreed. This statement had a mean of 3.72 and a standard deviation of 0.95, indicating general agreement among teachers on their confidence in using CBC-aligned assessment methods, with moderate variability across responses. While most respondents expressed confidence, a portion of teachers indicated some reservations in applying these assessment strategies.

In relation to the availability of learning resources to support effective CBC instruction, 45.9% (72) of respondents agreed, and 18.5% (29) strongly agreed indicating general support for resource availability. At the same time, 16.6% (26) were neutral showing uncertainty, while 14.0% (22) disagreed and 5.1% (8) strongly disagreed. This item recorded a mean of 3.71 and a standard deviation of 0.98, reflecting moderate agreement that sufficient resources are available, though responses show notable variation, possibly due to disparities in resource allocation across schools.

On whether teachers apply learner-centered instructional strategies that actively engage students in CBC learning activities, 49.7% (78) agreed and 24.8% (39) strongly agreed indicating strong adoption of active learning strategies. Only 12.7% (20) were neutral indicating uncertainty, while 9.6% (15) disagreed and 3.2% (5) strongly disagreed. This statement yielded a mean of 3.80 and a standard deviation of 0.94, indicating strong agreement among respondents that they apply learner-centered methods in their CBC instruction, with relatively less variability in responses. The high level of agreement reflects a positive shift toward active learner involvement, which is central to CBC pedagogy.

The above mean of 3.74 to standard deviation value of 0.96 shows that the CBC implementation in Kiambu County is positive on average, however the fact that there are neutral and disagreeing responses indicates some remaining challenges in terms of teachers' preparedness and availability of resources. These results are in line with Negahdari, Farhadi, Kamali, & Rezaei (2022), who found problems like resistance to change, lack of necessary instruments as well as inconsistent rubrics for evaluation among faculty members that disrupted the proper realization of competency-based curriculum. The importance of clear and well-structured assessment procedures, as well as tailored professional support to enhance consistency and reliability of competence judgments regarding effective CBC implementation was also stressed in the study.

Additionally, teachers were required to identify the key challenges they face in implementing CBC. Results showed that 63 respondents (40.1%) cited inadequate training on CBC, 52 respondents (33.1%) cited lack of learning resources, 28 respondents (17.8%) cited resistance from teachers or parents while 14 respondents (8.9%) cited other issues. These findings suggest that professional development and the availability of teaching materials remain central concerns for teachers in implementing CBC. The high proportion reporting inadequate training reflects that many teachers still feel underprepared to deliver CBC effectively, particularly in areas such as competency-based assessment, learner-centered pedagogies, and integration of digital tools. Similarly, insufficient resources, ranging from teaching aids to classroom infrastructure, continue to hinder curriculum delivery, especially in under-resourced schools.

The results coincide with Assila & Wided (2024) findings who claimed that teachers have difficulties in modifying traditional assessment practices for the use into Competency-Based Approach, which places relatively much emphasis on ongoing formative evaluations. Their study suggests the necessity of more

education in terms of assessment techniques and redefinition of tools assessment for both knowledge- and skill-based competences. This correlates with the findings of the present study which proposes that successful CBC implementation will require further and better teacher professional development, sufficient instructional materials and targeted socialization of teachers, parents and communities to minimize resistance while enhancing curriculum fidelity.

Teachers also suggested strategies for improving CBC implementation. The responses are summarized in Table 5.

Table 5: Strategies to Improve CBC Implementation (n = 157)

Strategy Category	Frequency	Percentage (%)
Monitoring, Capacity Building, and Stakeholder Engagement	83	52.9%
Resource and Capacity Enhancement	59	37.6%
Benchmarking	15	9.6%
Total	157	100%

Source: Field Data (2025)

Table 5 presents that 83 respondents (52.9%) cited strengthening monitoring, capacity-building, and stakeholder engagement as strategies to improve CBC implementation. 59 respondents (37.6%) cited resource and capacity enhancement while 15 respondents (9.6%) cited benchmarking. These findings highlight that teachers recognize the significance of capacity building and institutional accountability to ensure effective curriculum delivery. Calls for stronger monitoring and stakeholder engagement suggest that teachers view CBC as a collaborative reform that requires the active involvement of not only educators but also parents, administrators, and education officers. The emphasis on capacity building further indicates that teachers are aware of gaps in training and support that must be addressed if CBC is to be implemented consistently across schools.

The results support those of Assila & Wided (2024) who also found that teachers find it difficult to incorporate the traditional assessment procedures in a Competency-Based Approach, suggesting more training on how to assess accordingly. They underline the importance of modifying assessment tools to reflect both knowledge and skills-based competencies. This lends credence to the current study's suggestion that successful CBC practice needs ongoing support, adequate resource mobilization and focused teacher development.

To complement these quantitative findings, a thematic analysis was conducted to explore how narratives reinforced both the promise and challenges of CBC implementation. One teacher reflected positively, stating, *"I feel more confident now after attending CBC workshops. I can plan more engaging lessons and assess learners differently."* Resource constraints, however, were a common concern. One respondent noted, *"we are trying to do CBC, but we don't even have enough textbooks or materials for group work. It's difficult to apply the new methods without support."* Another added, *"sometimes we are told to improvise, but CBC needs tools and resources. Improvisation doesn't always work."* Some teachers also cited parental resistance. One commented, *"some parents still think the old way of exams is better. They don't see why we are doing projects or asking kids to demonstrate skills."* Despite these hurdles, teachers generally appreciated the learner-focused orientation of CBC. One teacher explained, *"I've seen learners become more confident and curious. When you teach through activities and real-life examples, they respond better."* Teachers also recommended improvements. One stressed, *"we need continuous mentorship and refresher training, not just a one-time workshop."* Another suggested, *"more collaboration between schools would help us share ideas and materials."*

The results correlate with that of Sikolia (2024) where it was noted that a culture of teacher collaboration peer coaching, joint lesson planning and collective problem solving strengthens CBC implementation by promoting

collective efficacy. However, the same study also observed that time and funds were not available to fully draw on the benefits of a collaborative process. From this foundation, the present study underscores how systemic professional learning communities can enhance teacher collaboration by bridging training, resource and stakeholder support gaps to improve CBC outcomes in Kiambu County.

Multiple Regression Analysis

Multiple regression analysis was used to evaluate both the combined and individual predictive power of teacher training indicators, specifically teacher mentorship, teacher collaboration, teacher innovation, and teacher assessment, on the implementation of the CBE in Kiambu County. This approach allowed for the assessment of how each teacher training factor, as well as their collective influence, contributes to variations in CBC implementation. The results of this analysis are summarized in Table 6, Table 7, and Table 8. The multiple regression model was utilized to explore how well teacher mentorship, teacher collaboration, teacher innovation, and teacher assessment collectively predict CBC implementation. The coefficient of determination (R^2) was used as a measure of the model's explanatory power, highlighting the proportion of variance in CBC implementation that can be attributed to the four teacher-related practices. The adjusted R^2 provides a refined estimate, accounting for the number of predictors to ensure generalizability to other samples.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.791	.626	.614	0.395

a. Predictors: (Constant), Teacher Mentorship, Teacher Collaboration, Teacher Innovation, Teacher Assessment

b. Dependent Variable: CBC Implementation

Source: Field Data (2025)

Table 6 showed the model had an R-Squared value of 0.626, indicating that 62.6% of the variability in CBC implementation is accounted for by teacher mentorship, collaboration, innovation, and assessment. The R-Squared value of 0.626 indicates that approximately 62.6% of the variation in the implementation of CBE in Kiambu County can be explained by the four predictors. This high R-Squared value suggests that teacher-related practices are substantial determinants of CBE implementation effectiveness, and the model has good predictive relevance beyond the sample data used in the analysis. The remaining 37.4% of the variance in CBE implementation, which is not explained by the four predictors in the model, may be attributed to other factors not included in the study.

Analysis of Variance (ANOVA)

Analysis of Variance (ANOVA) was employed to test the overall statistical significance of the regression model. The F-statistic tests whether the explained variance in CBC implementation is significantly greater than the unexplained variance, confirming whether the model provides a better fit than one based solely on the mean as indicated in Table 7.

Table 7: Model Fit Results (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.276	4	13.569	58.427	.000b
	Residual	32.752	152	0.216		
Total		87.028	156			

a. Dependent Variable: CBC Implementation

b. Predictors: (Constant), Teacher Mentorship, Teacher Collaboration, Teacher Innovation, Teacher Assessment

Source: Field Data (2025)

Table 7 indicated an F-statistic of 58.427 with a p-value of .000, signifying that the regression model is statistically significant. This means that the four teacher-related variables, when considered together, significantly influence the implementation of CBC in Kiambu County. The results further confirm that the model provides a better fit demonstrating that teacher mentorship, collaboration, innovation, and assessment collectively make a meaningful contribution to predicting CBC implementation outcomes.

Regression Coefficients

The regression coefficients presented in Table 8 provided an understanding of the individual contributions of each teacher-related dimension, teacher mentorship, teacher collaboration, teacher innovation, and teacher assessment toward the successful implementation of the CBE in Kiambu County. The analysis reports both unstandardized and standardized (Beta) coefficients, the latter allowing for a comparison of effect sizes across variables.

Table 8: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.487	0.452	–	1.078	0.283
Teacher Mentorship	0.324	0.085	0.281	3.812	0.000

Source: Field Data (2025)

Table 8 presented the regression model coefficients, providing evidence on how each teacher-related dimension contributes to the implementation of the CBE in Kiambu County. The analysis shows that all four predictors teacher mentorship, collaboration, innovation, and assessment, have statistically significant positive relationships with CBE implementation.

The findings indicate that teacher mentorship is a major predictor of CBE implementation with β of 0.324 ($p=0.000$). This shows that for each increment of one unit in teacher mentorship the value of CBE implementation will increase by 0.324 units. The p value ($p < 0.05$) indicates that this effect is not random and confirms the conclusion about the trustworthiness of mentorship as a factor influencing the application of CBE activities. It would appear that a structured mentoring approach, such as involves peer learning propriate professional advice and coaching, is instrumental in teaching readiness and, with proficiency in applying CBE approaches.

CONCLUSIONS AND RECOMMENDATIONS

The results highlighted the role of each teacher training strategy in enhancing the successful implementation of CBC. The descriptive statistics indicated that teacher mentorship was positively perceived as having a significant effect on CBE implementation in Kiambu County. A positive relationship between teacher mentorship and the implementation of CBE was established. Similar to previous research, mentoring is the support for promotion of professional learning, advice on lesson planning and effective classroom implementation of CBC. Study findings indicated a high degree of consensus on the merits of mentorship, particularly peer learning, as a powerful and collaborative form of professional development through digital mentoring platforms despite challenges in areas such as formalized structures for mentor sharing and availability across schools. Generally, teacher mentorship was found to be an effective approach in building and improving teachers' self-efficacy as well as CBC quality delivery in Kiambu County.

In conclusion, teacher mentorship is a key driver of CBE implementation in Kiambu County, enhancing teacher confidence, professional growth, and classroom practice. However, limited structured programs highlight the need for institutionalized frameworks and integration of digital platforms to maximize its impact.

The Study advocates building the capacity of teachers through long term continuous professional development that focuses on innovation in pedagogy, assessment for learning, use of information and communication technology (ICT) for education, and other aspects of CBE similar to those taught in pre

service teacher training (PSTT). It also recommends that "appropriate financial and other resources be committed to ensure the equitable distribution of ICT infrastructure, Internet access and teaching-learning material in all schools, especially in those located in under-served and rural areas". And policies should institutionalize such practices as peer mentorship and professional learning communities (PLCs) within schools, systems of collaboration and collegial guidance among teachers.

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