

INFLUENCE OF COMPETENCE-BASED EDUCATION (CBE) TRAINING ON THE PROFESSIONAL DEVELOPMENT OF TEACHERS IN KIRINYAGA COUNTY, KENYA

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The Strategic JOURNAL of Business & Change MANAGEMENT
ISSN: 2312-9492 www.strategicjournals.com
Vol. 13, Iss.2, pp 673 – 685, June 29, 2026. www.strategicjournals.com, © Strategic Journals

INFLUENCE OF COMPETENCE-BASED EDUCATION (CBE) TRAINING ON THE PROFESSIONAL DEVELOPMENT OF TEACHERS IN KIRINYAGA COUNTY, KENYA

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Accepted: June 13, 2026

DOI: http://dx.doi.org/10.61426/sjbcm.v13i2.3549

ABSTRACT

The introduction of Competence-Based Education (CBE) in Kenya in 2017 aimed to equip learners with 21st-century competencies, including creativity, critical thinking, problem-solving, and digital literacy. However, this shift has substantially influenced teachers' roles and their professional development needs. This study examined how CBE training influences the professional development of public primary and junior secondary school teachers in Kirinyaga County. The study was justified by the need to understand how curriculum reforms shaped educators' growth, which is essential to improving teaching effectiveness and learner outcomes. The research focused on public schools in both urban and rural locations in Kirinyaga County. Expectancy and Social Cognitive Career guided the study. These provided a holistic understanding of teacher development within a Competence-based Education. A mixed-methods design was employed using questionnaires and interviews. The sample included 270 teachers, selected through stratified random sampling. Quantitative data was cleaned, coded, and analyzed using descriptive and inferential methods. Qualitative data from interviews was transcribed, coded, and analyzed thematically to generate comprehensive insights.

Key Words: *Continuing Professional Development, Incentive Structures, Partnerships, Educational Institutions*

CITATION: Kiragu, D. K., Muchangi, D., & Maina M. (2026). Influence of competence-based education (CBE) training on the professional development of teachers in Kirinyaga County, Kenya**.** *The Strategic Journal of Business & Change Management*, 13 (2), 673 – 685.

INTRODUCTION

Prenger et al. (2017) emphasize the importance of active learning in professional development programs. In their view, empowering teachers to reflect, collaborate, and engage with new pedagogical methods is essential for meaningful change. This is particularly relevant as countries re-evaluate the effectiveness of traditional teacher training models in light of emerging CBE frameworks.

South Africa offers a promising example through the South African Council for Educators (SACE), which provides standardized training and support to ensure continuous professional development for educators (Moodley, 2019). These efforts include the use of digital platforms, Competence standards, and incentivized training programs. Such structures demonstrate how regional models can support teachers in adopting new pedagogical approaches aligned with CBE.

To facilitate this shift, the Ministry of Education, in collaboration with various stakeholders, has organized numerous teacher training programs, including workshops, in-service training, and seminars focused on CBE principles (Qoyyimah et al., 2023). These efforts are meant to bridge the gap between curriculum intent and classroom practice, yet challenges remain. Akala (2021) notes that teacher preparedness varies significantly, especially between rural and urban areas. Limited training duration, inconsistent access to resources, and lack of follow-up support hinder the effective assimilation of CBE strategies.

Despite these hurdles, some positive outcomes are emerging. Teachers have reported improved collaboration, increased student participation, and more engaging lesson delivery (Alvarez & Bian, 2017). Professional learning communities and digital forums are also emerging as platforms for peer-to-peer mentoring and sharing of best practices (Mashauri et al., 2024). These networks are essential for reinforcing training outcomes and sustaining pedagogical change.

The CBE has also emphasized continuous assessment, which differs from the summative, high-stakes examinations under the previous system. Teachers now assess learners' growth over time using varied tools, including portfolios, checklists, and observational rubrics (Branyon, 2013). While this model supports formative learning, it also demands a high degree of teacher skill in designing and interpreting assessment skills that require systematic training and experience (Mokoro, 2020).

Statement of the Problem

The Competence-Based Education (CBE) transformation in Kenyan education requires teachers to teach based on student needs, integrate digital competencies, and adopt ongoing assessment measures. This fundamental change in educational practices calls for teachers to maintain their current skills while acquiring new knowledge and professional practices through sustained and well-organized professional development (Melesse & Gulie, 2019). However, Cheruiyot (2024) argues that the expansion of CBE has not resolved numerous obstacles that continue to hinder teachers from accessing meaningful developmental opportunities necessary for navigating this educational transition.

A major complication arises when teachers remain in the same job group for extended periods. This stagnation restricts their professional development and diminishes motivation. According to the Kenya Union of Post Primary Education Teachers (KUPPET**)** report on 12th April**,** 2024 **,** 50,000 teachers have experienced job group stagnation for over five years. This stagnation not only impacts income and career benefits, such as medical coverage and pension, but also affects organizational morale, ultimately undermining teacher engagement with CBE reforms. The Teachers Service Commission (TSC), through its Career Progression Guidelines (CPGs), has tied promotions to administrative vacancies, thereby limiting opportunities for career advancement among classroom teachers. As a result, the expectations of CBE are misaligned with

the everyday realities of teachers, who are expected to implement new instructional practices without commensurate professional growth (Okumu, 2021). Kirinyaga County provided a compelling context for this study because it has a mix of both urban and rural public schools, with varied levels of access to training and stakeholder support. Preliminary reports from the county's education offices suggested inconsistencies in CBE implementation, particularly regarding teacher preparedness and the professional development programs available. Studying Kirinyaga County allowed a closer examination of how these disparities affected teachers' ability to implement CBE, thereby generating insights that informed localized interventions and broader national policies. Maiyuria (2024) states that CBE implementation relies heavily on teacher capacity and motivation. Therefore, it was critical to investigate the extent to which the CBE influences the professional development of teachers, particularly in counties like Kirinyaga, where the curriculum's rollout presented both opportunities and significant challenges. The knowledge generated from this study helped to guide evidence-based policies and targeted interventions aimed at supporting teachers in fulfilling their evolving instructional roles.

Objective of the Study

The study evaluated the influence of training provided for the CBE on the professional development of teachers in Kirinyaga County, Kenya.

The study tested the following hypothesis;

H_o: There is no significant influence of CBE training on the professional development of teachers in Kirinyaga County, Kenya.

LITERATURE REVIEW

Theoretical Literature Review

Expectancy Theory – Victor Vroom

Social Cognitive Career Theory (SCCT), crafted by Lent, Brown, and Hackett (1994) using Bandura's Social Cognitive Theory (1986), explains how career interests are formed, occupational decisions are made, and job success is achieved. SCCT, in its simplest form, concerns itself with the interaction among personal factors, activity, and environmental conditions in creating professionalism. In comparison to purely cognitive or behavioral theories, SCCT integrates internal psychological assumptions and external contextual aids to offer a thorough description of career development and adaptation to work demands.The theory proposes three main constructs:

Self-efficacy: The trust individuals possess regarding their ability to perform tasks effectively. High self-efficacy teachers tend to try out new methods, persevere with adversity, and sustain efforts in CBE implementation. The anticipated consequences of one's actions. Educators who expect that adopting CBE practices will lead to positive student outcomes are likely to be active reformers. Personal goals: The intentions or purposes that guide individuals' actions and persistence. Educators with professional goals—e.g., mastery of CBE content or facilitator certification as a learner-centered education facilitator—are likely to be committed to extended development.

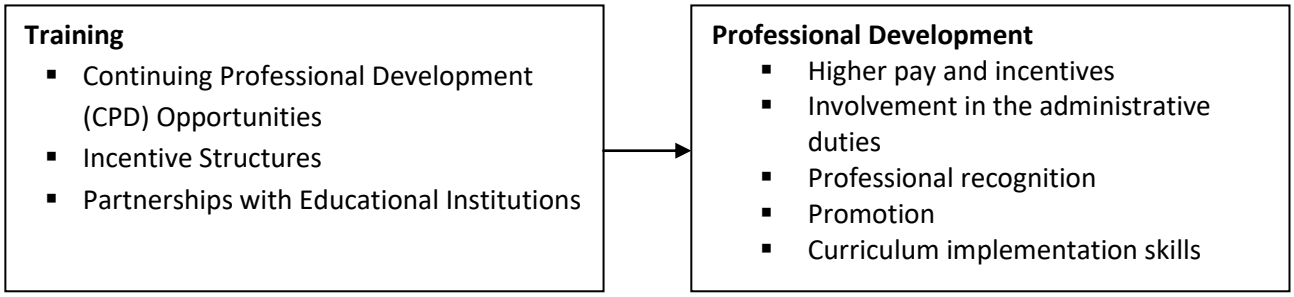
Under the scope of this study, SCCT has direct relevance to all of the variables of teacher professional development under the CBE. Pedagogical Approaches: SCCT explains that the tendency of teachers to utilize student-centered approaches depends largely on their self-efficacy. A teacher who is certain about being able to manage group work, facilitate inquiry-based learning, or work with technology will find themselves attempting and sustaining these practices. Teachers who anticipate that such practices will result in higher engagement and performance (positive outcome expectations) lend the strength to these approaches in the classroom.

Content of CBE: The Competence and interdisciplinary design of CBE necessitates crossing subject borders for teachers. SCCT assumes that self-efficacy (confidence in being able to

understand and teach the content) is key in successful adoption. Teachers who anticipate that the inclusion of CBE content within their teaching will enhance learners' problem-solving and critical thinking are more inclined to accept the curriculum without reservations.Training and Professional Development: Training is an important means of developing teachers' self-efficacy. By way of concrete demonstrations, practice sessions, and exposure to success stories, workshops erase doubt and build competence. As teachers achieve mastery through training, their confidence in their capability increases, and they are more likely to implement CBE.

Teacher Collaboration and Networking: SCCT incorporates also the theory of observational learning, taken from Bandura's original theory. When teachers collaborate in professional learning communities, peer to peer look at each other's accomplishments, and share strategies, they develop their own self-efficacy and outcome expectations. Networking is also beneficial in group goal setting, aligning to a culture of collaboration and continuous growth. Stakeholder Support: Institutional support from education officers, school administrators, parents, and peers is also important in supporting teachers' outcome expectations. Teachers gain more confidence when they perceive support and are more willing to reconcile their professional aspirations and institutional requirements. Supportive environments reduce resistance, enhance pedagogical risk-taking, and legitimate teachers' professional selves.

Conceptual Framework



Independent Variable **Dependent Variable**

Figure 1: Conceptual Framework

Review of Variable

Training is a critical driver of teachers' professional development in Kenya's Competence-Based Education (CBE). Workshops, seminars, and continuous professional development (CPD) programs equip teachers with the skills, knowledge, and pedagogical strategies needed to implement the curriculum effectively. Collaboration with universities and educational institutions enhances access to research, instructional design expertise, and curriculum development resources. Incentive structures, such as recognition, certification, or monetary rewards, motivate teachers to participate actively and apply learnt skills in the classroom. Therefore, well-structured training initiatives directly enhanced teachers' competence, efficacy, and readiness to deliver CBE successfully, making professional development an ongoing necessity.

Empirical Review

Globally, studies show that well-designed CBE training enhances teacher competence, instructional quality, and self-efficacy. Opiyo & Ovando (2021) reported that targeted Competence-specific training improves teacher confidence and classroom practice. Lee (2018) similarly found that continuous CPD programs especially those involving hands-on practice strengthen teaching efficacy. Effective professional development must be ongoing and supported through follow-up, practice, and feedback (Zepeda, 2019). Incentives also play a role in the sense that recognition and rewards increase teachers'

willingness to adopt innovative CBE strategies (Louws et al., 2017). Collaboration with higher education institutions further enhances training quality by filling knowledge gaps and providing expert-led support (Bergmark, 2023).

Across Africa, CBE training has been shown to improve teaching practices, though implementation challenges persist. In Ghana, Agyei & Kwakye (2022) found that competence-based training significantly improved instructional strategies and student outcomes. Similar trends are noted in other East and Southern African contexts, where sustained training and localized support are essential for effective CBE implementation (Tesha & Orodho, 2018). However, regional studies highlighted challenges such as limited resources, inconsistent training, and time constraints, with Kioko (2023) identifying digital platforms as a potential solution for improving training accessibility.

In Kenya, CBE training is central to teacher preparedness under the CBE. Cherotich (2023) showed that CBE-focused training strengthens teachers' understanding of competencies such as creativity, critical thinking, and digital literacy. The quality and continuity of CPD strongly influence teacher confidence and instructional change. However, logistical challenges such as limited materials, time pressures, and uneven access to training continue to undermine effective implementation. Emerging solutions include digital CPD modules, expert-led workshops, and collaborations with training institutions.

METHODOLOGY

This study has adopted a mixed-methods research design, combining both quantitative and qualitative approaches to provide a comprehensive understanding of the influence of the Competence-Based Education (CBE) training on the professional development of teachers in Kirinyaga County. The target population for this study comprised of public primary and junior secondary school teachers in Kirinyaga County, Kenya. These teachers were directly involved in the implementation of the Competence-Based Education (CBE) and were therefore well-positioned to provide insights into how the curriculum influences professional development. The sampling frame for this study consisted of 830 public primary and junior secondary school teachers in Kirinyaga County, as documented by the Teachers Service Commission (TSC) and the County Director of Education. This population included teachers from both urban and rural settings, distributed across the five sub-counties: Kirinyaga Central, Kirinyaga East, Kirinyaga West, Mwea East, and Mwea West. To ensure balanced representation across the different school levels and sub-counties, stratified random sampling was employed. A sample size of 270 teachers was determined using Yamane's formula (1967) at a 95% confidence level and a 5% margin of error.

This study primarily relied on primary data, which was collected directly from public primary and junior secondary school teachers in Kirinyaga County. The use of primary data is justified as it provided first-hand, up-to-date, and context-specific insights into how the Competence-Based Education (CBE) influences teachers' professional development. This data helped to capture individual experiences, perceptions, and challenges faced by teachers during CBE implementation. To gather this data, the study employed two main instruments: a structured questionnaire and a semi-structured interview guide.

This study adopted both quantitative and qualitative data analysis methods to transform collected data into meaningful insights. Quantitative data was analyzed using the Statistical Package for Social Sciences (SPSS) version 20.0, while qualitative data was analyzed through thematic content analysis. Quantitative data was cleaned and coded to ensure consistency and completeness. Descriptive statistics such as percentages, means, ranges, variances, and standard deviations were used to summarize the demographic and variable-specific characteristics of the respondents. Qualitative data obtained from

interviews was transcribed, coded, and analyzed thematically. Findings were presented using tables, graphs, and charts for quantitative data, and narrative summaries and thematic illustrations for qualitative data. This dual approach provided a comprehensive view of the CBE's influence on teacher professional development.

FINDINGS

Response rate

The researcher successfully distributed 270 questionnaires to the selected study participants. A total of 176 questionnaires were completed and met the inclusion criteria, while 94 were not returned. This resulted in a response rate of 65.1% and a non-response rate of 34.9%. According to Mugenda and Mugenda (2003), a response rate of 50% is considered adequate, 60% is good, and 70% and above is very good for data analysis and reporting. Therefore, the achieved response rate of 65.1% in this study is considered good and satisfactory, ensuring that the data collected is reliable and sufficient for meaningful analysis.

Training

Regarding training, respondents indicated that the quality of CBE training aligns with their professional development (Mean = 4.02, SD = .977). However, frequency of receiving training was slightly lower (Mean = 3.81, SD = 1.035), suggesting possible limitations in continuous professional development opportunities.

Teachers agreed that training improved their competence (Mean = 3.99, SD = .923) and that training content was applicable to teaching practice (Mean = 4.05, SD = .934). Overall, training was positively rated, though frequency remains an area for improvement.

Table 1: Correlation Analysis

		Training	Professional Development
Training	Pearson Correlation	1	.551**
	Sig. (2-tailed)		.000
	N	176	176
Professional Development	Pearson Correlation	.551**	1
	Sig. (2-tailed)	.000	
	N	176	176

Pearson correlation analysis was conducted to examine relationships among study variables.

Training was positively and significantly correlated with Professional Development at the 0.01 significance level. Correlation between Professional Development and Training was ($r = .551$, $p < .01$) and Professional Knowledge ($r = .387$, $p < .01$). These findings indicate that improvements in training and professional knowledge are associated with higher levels of professional development.

Major Themes and Findings

Training and Capacity Gaps

The findings indicate several key areas where teachers require further support to effectively implement the Competency-Based Curriculum (CBC). These include the development and application of assessment rubrics, ICT integration in teaching and learning, delivery of pre-technical subjects, creative arts and sports, and music education. Teachers also expressed the need for strategies to manage large class sizes and guidance on accurately recording Continuous Based Assessment (CBA) results on the designated online portals. The pattern emerging from the data suggests that training gaps are both pedagogical—such as assessment literacy and classroom management—and subject-specific, particularly in newly introduced learning areas. Notably, disparities exist across schools: while some institutions benefit from retooling programs and workshops organized by education authorities, others reported having no structured platforms for

professional development. Consequently, the findings reveal that ongoing teacher professional development remains insufficient, inconsistent, and unevenly distributed, potentially affecting the quality and uniformity of CBC implementation.

Discussion of Findings

Training and Capacity Gaps

Training emerged as both a strength and a limitation. Quantitative findings indicate that training quality aligns with professional development (Mean = 4.02), yet frequency of training was rated slightly lower (Mean = 3.81), suggesting inconsistencies in access.

Qualitative findings identified specific training needs: assessment rubric development, ICT integration, pre-technical subjects, creative arts and sports, music education, large class management, and CBA portal recording. These needs demonstrate that training gaps are both pedagogical and subject-specific.

Notably, disparities exist across schools. Some benefit from retooling sessions, workshops, and online platforms, while others reported limited or no structured professional development opportunities. Such uneven distribution may contribute to inequitable implementation outcomes.Given that training showed the strongest correlation with professional development, strengthening continuous professional development systems is critical for enhancing teacher effectiveness and sustaining CBC reform.

CONCLUSION AND RECOMMENDATIONS

The objective evaluated the influence of training on professional development. Training emerged as the most influential predictor of teacher professional growth. Regression analysis revealed that training had the strongest explanatory contribution to variation in professional development levels. Teachers who regularly attended professional development sessions demonstrated better curriculum interpretation, assessment literacy, and digital integration skills. Training also reduced anxiety associated with curriculum reforms. Importantly, training enabled teachers to build both technical competence and professional confidence. It provided structured opportunities for skill acquisition and clarification of curriculum expectations. However, disparities in training access were noted. Teachers in some institutions reported fewer training opportunities, highlighting systemic inconsistencies. Despite this challenge, the statistical strength of training as a predictor underscores its central role in competency-based reform implementation. The findings affirm that sustained and well-coordinated professional development programs are essential for successful CBE adoption and continued teacher growth.

The study demonstrated that professional development among teachers is closely linked to the mastery of assessment practices, continuous professional learning, and engagement in teacher networking activities. Teachers reported that understanding assessment rubrics, conducting portfolio-based assessments, and implementing continuous assessment strategies enhanced their instructional confidence and competence. Training was identified as a significant predictor of professional growth, with frequent and targeted capacity-building programs reinforcing teacher skills and knowledge. Regression analysis revealed that training, alongside pedagogical approaches, professional knowledge, and networking, collectively explained a substantial proportion of variance in teacher professional development. This underscores the importance of well-structured and continuous professional development initiatives in ensuring effective CBE implementation. Moreover, the study found that teachers are increasingly embracing a multifaceted role, encompassing facilitation, mentorship, assessment, and curriculum interpretation. This shift aligns with global trends in education, where teachers are expected to not only deliver content but also guide learners toward the development of competencies essential for lifelong learning.

The study concluded that the implementation of Competency-Based Education in Kirinyaga County significantly enhances teachers' professional development. Teacher training contribute to improved teacher competence, motivation, and career prospects. Learner-centered teaching approaches emerged as a major driver of professional development, enabling teachers to adopt facilitative, mentorship, and assessment-focused roles. Training was identified as critical mechanisms for professional growth.

Based on the findings, the study recommended that curriculum developers should provide clear guidelines and standardized frameworks to reduce ambiguity and ensure uniform implementation of CBE. Finally, policy makers should develop strategies to ensure equitable access to professional development opportunities and provide incentives for teachers who actively engage in capacity-building activities. By adopting these recommendations, teacher professional development can be significantly enhanced, thereby improving teaching quality and overall learner outcomes under CBE.

Suggestions for Further Research

Although this study offers significant insights, further research is necessary to address gaps and emerging challenges. Comparative studies across urban and rural schools would identify contextual differences that affect CBE implementation. Longitudinal research could investigate the long-term impact of CBE on teacher career progression, professional recognition, and retention.

The role of school leadership in facilitating teacher growth under CBE requires additional exploration, particularly regarding how leadership styles influence the success of training, networking, and curriculum implementation. Furthermore, studies investigating the direct relationship between teacher professional development and learner outcomes would provide valuable evidence on the practical impact of teacher growth on student competencies.

Expanding research to a national level, involving multiple counties and diverse school types, would enable broader generalizations and inform policy decisions aimed at enhancing teacher performance across Kenya. Additionally, examining the integration of emerging strategies, such as blended learning, tele-teaching, and digital platforms, could provide further insights into sustainable professional development under CBE. Addressing these areas in future studies will build on current findings and contribute to a comprehensive understanding of teacher professional development in the context of modern educational reforms.

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