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**Trainer Methodologies Competence and the Implementation of
Competency-Based Education in Meru County, Kenya**



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Trainer Methodologies Competence and the Implementation of Competency-Based Education in Meru County, Kenya

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Abstract

Purpose: This study examined the influence of trainer methodologies competence on the implementation of competency-based education (CBE) in Meru County, Kenya. The study was guided by Mezirow's Transformative Learning Theory.

Methodology: A convergent mixed-methods design was employed. Quantitative data were obtained from 345 Grades 1–6 teachers using questionnaires, while qualitative data were collected through teachers' open-ended responses and semi-structured interviews with 40 head teachers. Quantitative data were analyzed using descriptive statistics and Pearson's correlation, while qualitative data were analyzed thematically.

Findings: Trainers received favorable ratings for subject mastery ($M=3.92$), communication clarity ($M=3.85$), and pedagogical skills ($M=3.78$). However, practical demonstration ability ($M=3.62$) and responsiveness to questions ($M=3.58$) received comparatively lower ratings. Trainer competence was positively associated with perceived training effectiveness, ($r=.58$, $p<.001$). Teachers also rated scaffolded and participatory methodologies highly, particularly the "I do, we do, you do" approach ($M=4.70$), hands-on activities ($M=4.50$), use of realia ($M=4.40$), and peer learning ($M=4.30$). Qualitative findings confirmed teachers' preference for knowledgeable trainers and practical, collaborative training. Further, lecture-dominated delivery and weaknesses in the cascade model constrained classroom transfer. Again, practical methodologies strengthened teachers' confidence and ability to facilitate learner-centred lessons. Also, head teachers unexpectedly identified the cascade training model as a source of inconsistent methodology and content delivery. The study concludes that, trainer competence and training methodology were significant determinants of CBE in-service training effectiveness.

Unique Contribution to Theory, Policy and Practice: The study recommends that, the ministry of education to establish standardized trainer-selection and certification procedures; Schools to prioritize demonstration, guided practice, microteaching, collaboration, and feedback; Training institutions to strengthen trainers' adult-learning and practical facilitation skills.

Keywords: *Competency-Based Education, In-Service Training, Trainer Competence, Professional Development, Training Methodology, Primary Schools*

1.1 Study Background

Competence Based Education (CBE), which is also referred to as competence-based curriculum (CBC), is an educational approach, that emphasizes the development of learners' practical skills, critical thinking, problem-solving abilities, and values necessary for effective participation in society (UNESCO, 2015). The CBC is a learner-centred approach that promotes active participation, personalized learning, and holistic development, preparing students to meet the demands of a rapidly changing world (UNESCO, 2015). The core premise of the CBC is to develop learners' skills, attitudes, and knowledge that are directly applicable to real-world contexts (Spady, 1994). Furthermore, UNICEF emphasizes that competency-based curricula are essential for equipping learners with skills for sustainable development and lifelong learning (UNICEF, 2018).

Aarva and Kikas (2021) conducted a quantitative longitudinal study involving teachers and students from various Estonian schools to examine the long-term effects of CBC implementation on student competencies and learning outcomes. The objective was to assess whether the curriculum reforms have led to measurable improvements in key skills such as digital literacy, critical thinking, and self-regulation over several years. The target population included teachers, students, and school administrators across Estonia. Results indicated significant improvements in students' digital skills and self-directed learning abilities, particularly in schools with comprehensive teacher training and resource support. The study emphasized the importance of sustained professional development and resource allocation for achieving long-term success.

The CBC in Australia signifies a pedagogical shift from traditional knowledge-centred approaches towards emphasizing the development of specific, measurable skills, attitudes, and knowledge that are directly applicable to real-world contexts. This approach aims to prepare students more effectively for employment and lifelong learning by ensuring that learning outcomes are clearly delineated and aligned with industry standards (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2019). Central to the CBC is the focus on student-centred learning, where learners progress at their own pace until they demonstrate mastery of defined competencies (ACARA, 2019). Assessment strategies in this framework prioritize formative, ongoing evaluation to continually monitor student progress, rather than relying solely on summative examinations (Australian Skills Quality Authority [ASQA], 2021).

Multiple studies have sought to evaluate the effectiveness and challenges of the CBC in Nigeria. For example, Ojo and Olaniyan (2020) conducted a mixed-methods study involving surveys and interviews with teachers, students, and policymakers across selected states, revealing that while there is widespread awareness of the curriculum's objectives, actual implementation remains uneven and often superficial. Their findings highlight that many teachers lack adequate training in competency-based instructional methods, which affects the quality of delivery and assessment (Ojo & Olaniyan, 2020). Similarly, Eze and Eze (2019) evaluated the assessment frameworks used in CBC, noting that the lack of standardized evaluation tools hampers reliable measurement of

competency acquisition, leading to concerns about the credibility of reported outcomes. The target audiences for such studies include educators, policymakers, industry representatives, and development partners interested in Nigeria's educational reforms, with the goal of informing policy adjustments and capacity-building efforts (Aina & Akinbami, 2017).

In Rwanda, CBC marks a significant pedagogical shift aimed at transforming the education system from a traditional, content-focused model to a learner-centred approach that emphasizes the development of practical skills, attitudes, and values necessary for personal and national growth. This reform aligns with Rwanda's development strategies and policies, which underscore the importance of cultivating a skilled, innovative, and adaptable workforce capable of contributing to sustainable development (Niyonsaba & Mugisha, 2020; Rwiza & Sebatware, 2021). The curriculum emphasizes not only knowledge acquisition but also the application of skills in real-world contexts, fostering critical thinking, problem-solving, and lifelong learning skills.

The education system in Kenya has undergone significant reforms over the decades, reflecting the nation's continuous efforts to improve learning outcomes and align education with national development goals. Historically, Kenya's curriculum has evolved from the colonial-era system to the colonial-inherited 7-4-2-3 system, which was primarily content-focused and aimed at producing a literate workforce capable of serving colonial administrative needs (Mulwa, 2018). Following independence in 1963, the government introduced the 8-4-4 curriculum in 1985, which was characterized by eight years of primary education, four years of secondary education, and a four-year university program. The 8-4-4 system aimed to promote higher education and technical skills but was criticized for being exam-oriented, rigid, and lacking relevance to the socio-economic needs of the country (Kipkebut & Mutisya, 2019). In response to these shortcomings, Kenya embarked on curriculum reforms to make education more relevant, practical, and responsive to the needs of learners and the labor market. The move towards a CBC was part of this broader reform agenda, driven by the recognition that the existing 8-4-4 system was not adequately equipping students with critical skills such as problem-solving, creativity, and adaptability.

The CBE in Kenya aims to foster skills such as communication, collaboration, creativity, and digital literacy, aligning education with national development objectives and global standards (Kenya Institute of Curriculum Development [KICD], 2017). Unlike traditional curricula that primarily focus on the accumulation of content and rote memorization, CBC (currently referred to as CBE) prioritizes the acquisition of specific competencies that enable learners to apply knowledge in real-world contexts (KICD, 2017). The development of the CBE was informed by comprehensive needs assessments and stakeholder consultations conducted between 2015 and 2017. These assessments revealed that the existing curriculum was overly examination-focused, lacked emphasis on life skills, and did not adequately prepare learners for the realities of the modern economy (KICD, 2019). The assessments also underscored the need to shift from rote memorization to skills development, creativity, innovation, and lifelong learning.

From a policy perspective, the Kenyan government has recognized the importance of addressing CBE implementation challenges through strategic reforms. Policies have been enacted to enhance teacher training, resource provision, and curriculum localization, with the aim of ensuring that the CBC is effectively implemented and sustainably embedded into the education system (KICD, 2019). The policy implications also include the need to revisit assessment frameworks, moving towards more formative and competency-based evaluation methods that accurately reflect learners' skills and attitudes. Moreover, there is an increasing emphasis on stakeholder involvement, including parents, communities, and industry players, to foster a supportive environment for the new curriculum and align education outputs with labor market demands (Mugo & Njeru, 2020). Addressing these issues through targeted policy reforms, capacity-building initiatives, and resource mobilization will be vital to realizing the full potential of the CBC and ensuring that Kenya's education system adequately prepares learners for the demands of the 21st-century economy (KICD, 2019; Mugo & Njeru, 2020).

Training methodology is equally important. Active learning, modelling, guided practice, collaboration, feedback, and coaching are more likely to produce instructional change than passive lectures (Darling-Hammond et al., 2017; Joyce & Showers, 2002). Scaffolded approaches such as "I do, we do, you do" allow teachers to observe a practice, apply it with guidance, and eventually use it independently (Pearson & Gallagher, 1983). Despite the importance of trainer competence and methodology, concerns remain about short workshops, inadequate demonstrations, theory-heavy delivery, and the loss of content through cascade training. This study consequently examined how trainer methodology competence influence the effectiveness of CBE in-service training in Meru County.

1.2 Statement of the Problem

Adequate support to teachers is considered the single most important approach in contributing to improved classroom instruction and better learning outcomes (Bunyi et.al, 2013). The ideal scenario for adequate implementation of the CBC in Kenya is that in-service teacher training equips teachers with the necessary skills, knowledge, and pedagogical strategies to effectively facilitate student-centered and skills-oriented learning experiences (MoE, 2017). According to policy frameworks, comprehensive and continuous teacher professional development should enhance teachers' competence, thereby ensuring the successful rollout of the CBC across all levels of education (KICD, 2019).

The Government of Kenya introduced the Competency-Based Curriculum (CBC) to replace the teacher-centered 8-4-4 system with a learner-centered approach aimed at nurturing practical skills, values, and core competencies. For this educational shift to succeed in primary schools, trainers and teachers must possess a high level of trainer methodology competence, which includes mastery of collaborative learning strategies, formative assessment techniques, and differentiated instruction. However, despite extensive national rollouts and ongoing professional development

workshops, a persistent gap remains between the intended curriculum design and actual classroom delivery in Meru County.

Many primary school educators continue to rely on traditional, rote-memorization teaching methods due to inadequate pedagogical preparation, limited conceptual understanding of competency-based frameworks, and insufficient ongoing school-based mentorship. Many teachers lack sufficient exposure to the new pedagogical approaches embedded in the CBC, largely due to limited resources, logistical challenges, and a shortage of qualified trainers (KICD, 2018; MoE, 2020).

This deficiency in trainer methodology competence directly hinders the effective implementation of Competency-Based Education (CBE), resulting in lessons that fail to engage learners actively or foster the required core competencies. If this mismatch between expected trainer competence and classroom practice is not addressed, the multi-billion-shilling curriculum reform risks failing, leaving learners ill-equipped for the demands of the 21st-century economy. Several studies have examined the implementation of the CBE and the effectiveness of in-service teacher training in Kenya. A study by Orodho (2019) conducted a quantitative survey to explore teachers' preparedness for CBC implementation, highlighting issues of inadequate training and resource constraints, while a qualitative study by Mutisya and Makokha (2016) explored teacher experiences with curriculum reforms in Kenya. Therefore, this study seeks to investigate the influence of trainer methodologies competence on the implementation of Competency-Based Education in primary schools within Meru County, Kenya.

1.3 Study Objective

This study sought to determine the influence of trainer methodology competence on the effectiveness of in-service training for CBE implementation in Primary schools in Meru County, Kenya.

Hypotheses

H01: Trainer competence has no statistically significant relationship with in-service training effectiveness.

H02: In-service training methodology does not significantly influence teachers' ability to implement CBE.

1.4 The Conceptual Framework

Independent Variable

Dependent Variable

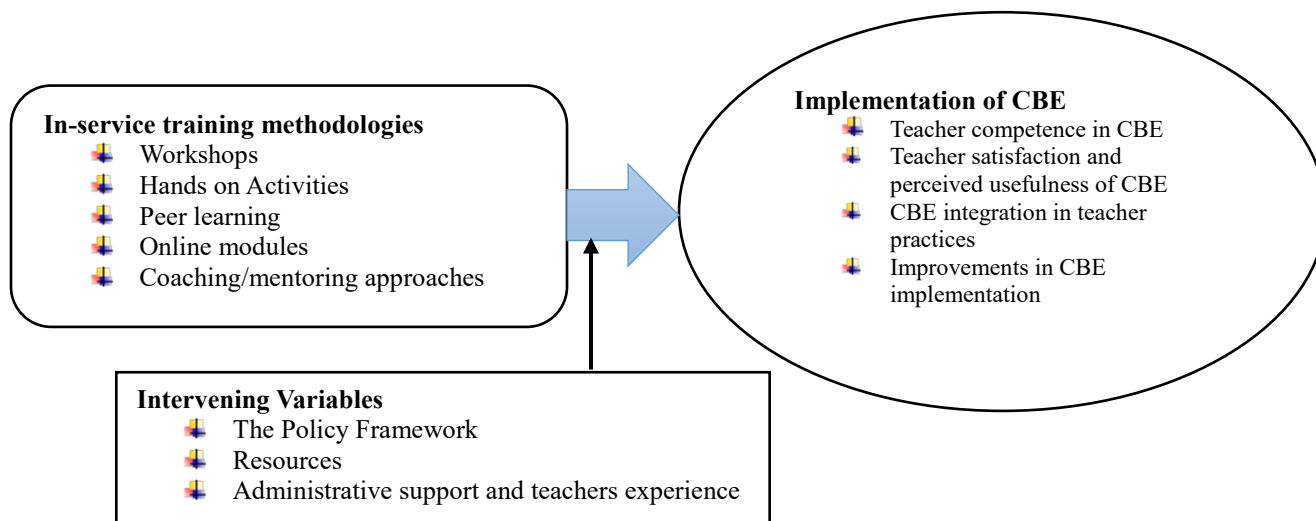


Figure 1: *The Conceptual Framework*

Source: *Own Conceptualization, 2025*

1.5 Literature Review

In this section, theoretical and empirical review guiding this study are presented. Theoretical review presents the sociological underpinning on how trainer methodology competence influences the effectiveness of in-service training for CBE implementation in schools. The empirical review presents the knowledge base and gaps on the existing literature.

1.5.1 Theoretical review

The study was guided by Transformative Learning Theory, which explains adult learning as a process through which individuals critically examine existing assumptions and adopt revised perspectives (Mezirow, 1991, 2000). In CBE professional development, transformation may occur when teachers reflect on established teacher-centered practices, experience alternative instructional approaches, and apply learner-centered strategies. Trainer competence and active methodology are important to this transformation. Trainers must create opportunities for dialogue, reflection, modelling, practical application, and feedback. Theory-dominated training may increase awareness but may not produce the practical and conceptual transformation required for CBE implementation.

1.5.2 Empirical review

Influence of In-Service Training Methodologies on CBE Implementation

In-service training methodology refers to how professional learning is organized and delivered, including workshops, demonstrations, simulations, coaching, mentoring, peer observation, lesson study, professional learning communities, and online or blended learning. The underlying

assumption is that the quality of teaching is connected to opportunities teachers receive to develop pedagogical knowledge and skills through initial and continuing professional education (Dembélé & Lefoka, 2007, as cited in Bunyi et al., 2013).

Globally, Garet et al. (2001) conducted a large-scale quantitative survey involving more than 1,000 mathematics and science teachers in the United States. Informed by constructivist learning principles, the study examined characteristics associated with effective professional development. Content focus, active learning, coherence, sufficient duration, and collective participation were associated with improvements in teachers' knowledge and reported classroom practice. The large sample strengthened the study's statistical evidence, but its cross-sectional, self-reported data could not adequately demonstrate sustained behavioural change. Furthermore, the focus on mathematics and science teachers in the United States restricts direct application to CBE implementation in Kenyan schools. The present study draws on these identified features but examines their relevance through teachers' quantitative ratings and qualitative accounts in Meru County.

Borko (2004) reviewed experimental, quasi-experimental, and case-study research from North America and Europe through situated learning theory. The review concluded that professional development is more effective when it is sustained, context-specific, and accompanied by opportunities for classroom practice and reflection. One-off workshops generally produced limited long-term change unless followed by continuing support. As a review, however, it depended on studies conducted mainly in developed educational systems and could not capture contemporary teacher experiences in Kenya. This geographical and temporal gap makes current, locally grounded investigation necessary.

Vescio et al. (2008) reviewed research on professional learning communities and found that sustained teacher collaboration could improve teaching practices and student outcomes. Guskey and Yoon (2009) also emphasized the importance of well-structured professional development and continued support, while Darling-Hammond (2017) highlighted the role of professional learning in helping teachers respond to new pedagogical demands and technologies. These studies establish the value of collaborative and sustained learning, but they provide limited insight into whether such approaches are feasible where schools face shortages of time, trainers, learning materials, and technology. The current study therefore investigates both the perceived effectiveness and practical feasibility of different training methodologies.

At the African regional level, Akyeampong et al. (2011) conducted a mixed-methods study in Ghana, Tanzania, and Lesotho using surveys, interviews, document analysis, and classroom observations. Guided by experiential and constructivist perspectives, they found that lesson study, peer observation, collaborative planning, and other classroom-based methods promoted stronger engagement with curriculum reforms. However, cascade training often diluted content because subsequent facilitators did not always possess adequate competence, while follow-up support was

limited. The multi-country and mixed-methods design was a strength, but combining findings from different national systems may have obscured country- and school-specific variations. The present study responds by conducting an intensive examination within one Kenyan county while considering variations among school settings.

O'Sullivan (2010) conducted a qualitative case study using interviews and classroom observations to investigate teacher-educator development in Uganda. Drawing on Experiential Learning Theory, the study found that contextual adaptation, local-language use, classroom relevance, trainers' recent teaching experience, and cultural competence strengthened professional learning. Nevertheless, the qualitative case-study design involved a limited context and could not determine the prevalence of these experiences across a larger population. The current mixed-methods approach combines breadth and depth by measuring common patterns and exploring the reasons underlying them.

In Kenya, Ochieng and Musyoka (2021) employed a cross-sectional survey using structured questionnaires among public primary school teachers in Homa Bay County. Guided by Experiential Learning Theory, the study found that interactive exercises and classroom simulations improved teachers' confidence and preparedness to implement CBC. However, short training periods and inadequate follow-up restricted sustained application. Its quantitative, cross-sectional design could not adequately explain teachers' experiences or determine how practices developed over time. The current study supplements quantitative findings with qualitative evidence to explore how teachers apply, modify, or abandon the strategies learned during training.

Murunga et al. (2019) conducted a qualitative case study in Kakamega County using interviews and focus-group discussions with public primary school teachers and education officials. Informed by Adult Learning Theory, the study found that experience sharing, reflection, and collaborative problem-solving made training more useful, particularly when content addressed CBC assessment and classroom management. Nevertheless, inadequate materials, logistical challenges, and weak follow-up constrained effectiveness. Although the study generated detailed accounts, its qualitative design and limited setting reduced the generalizability of the findings. The present study uses mixed methods and gives particular attention to variations across school contexts in Meru County.

Wanjiru and Karanja (2018) used questionnaires and document analysis to examine in-service training and curriculum implementation in Kenyan public primary schools. School-based training and peer collaboration were associated with stronger teacher engagement and adoption of new strategies, while inadequate duration, weak planning, and insufficient contextualization limited effectiveness. However, the study did not include classroom observations or in-depth teacher narratives, and the reported information does not clearly establish how findings varied by location. The current study responds by combining numerical patterns with teachers' detailed accounts and by explicitly considering contextual differences within Meru County.

The reviewed evidence indicates that active, collaborative, sustained, school-based, and practice-oriented methodologies are generally more effective than one-off lectures and cascade workshops. Nevertheless, previous research frequently relied on self-reports, examined general professional development rather than CBE-specific training, or was conducted before the current curriculum reform. The present study uses Transformative Learning Theory to investigate whether training methods encourage critical reflection and changes in teachers' perspectives, while Experiential and Adult Learning theories help assess opportunities for practice, reflection, relevance, feedback, and self-directed learning.

1.6 Methodology

Research Design: A convergent mixed-methods design was used. Quantitative and qualitative data were collected during the same phase, analysed separately, and subsequently integrated to identify convergence, complementarity, divergence, and expansion.

Participants: The quantitative strand involved 345 Grades 1–6 teachers directed by Cohen et al., 2018 assertion of 10% - 30% representation. The qualitative strand included teachers' open-ended questionnaire responses and interviews with 40 head teachers drawn from public and private schools in urban, peri-urban, and rural settings. To recruit participants in the study, the schools were selected using proportionate stratified sampling techniques and teachers were selected using simple random sampling techniques. Head teachers were purposely selected to participate in the study.

Data Collection: Teacher questionnaires measured trainer competence, training methodology, and perceived training effectiveness. Semi-structured interviews obtained head teachers' perspectives on trainer preparation, cascade training, professional support, and the transfer of training into classroom practice.

Data Analysis: Quantitative data were analyzed using frequencies, percentages, means, and Pearson's correlation. Qualitative data were analyzed thematically. Deductive themes reflected the research objectives, while emergent themes captured unexpected issues arising from participants' accounts.

1.7 Study Findings

In this section, the results of this research are presented.

Response Rate

Quantitative strand

A total of 345 questionnaires were distributed to sampled Grades 1 to 6 teachers, comprising 307 public-school teachers and 38 private-school teachers. All 345 questionnaires were completed and returned. Screening established that all returned questionnaires were sufficiently complete and valid for analysis. The response rate exceeded the 70% benchmark generally considered very good in social science research (Babbie, 2007). Complete questionnaire return reduced the likelihood of nonresponse bias and ensured that all sampled teachers' responses were represented in the quantitative dataset (Creswell & Creswell, 2023). The high response rate may be attributed to

effective administration and follow-up, institutional cooperation, and participants' interest in the topic. The response rate alone does not guarantee validity or generalisability, which also depend on sampling procedures, instrument quality, response accuracy, and appropriate data analysis. The results are presented in Table 1 instrument return rate.

Table 1: Instrument Return Rate

Category	Instrument Distributed	Instrument Returned	Percent
Teachers	345	345	100%
Head teachers	40	40	100%

Source: Field Data, 2026

Qualitative strand

The qualitative strand included semi structured interviews with 40 head teachers, 31 from public schools and nine from private schools. All 40 targeted head teachers participated, producing a qualitative participation rate of 100%. Teachers' responses to open-ended questionnaire items also contributed to the qualitative evidence. The head teachers represented urban, peri-urban, and rural schools across Imenti North, Imenti South, Tigania West, and Igembe Central sub-counties. Their involvement in instructional leadership, teacher professional development, and supervision of CBE implementation enabled them to provide informed accounts of training effectiveness, classroom transfer, and school-level constraints. The head teachers' complete participation captured the perspectives of all sampled head teachers and reduced the likelihood of nonresponse bias.

Thematic Findings

Influence of In-Service Training Methodologies on Effective CBE Implementation

This question aimed to assess whether the choice of training approaches, such as lecture-based workshops, demonstration lessons, peer collaboration, or ongoing coaching, affects teachers' understanding, confidence, and practical application of CBE principles in the classroom. The question sought to establish whether the training approaches used enhanced teachers' understanding of CBE concepts, strengthened their confidence, and enabled them to translate the acquired knowledge and skills into classroom practice.

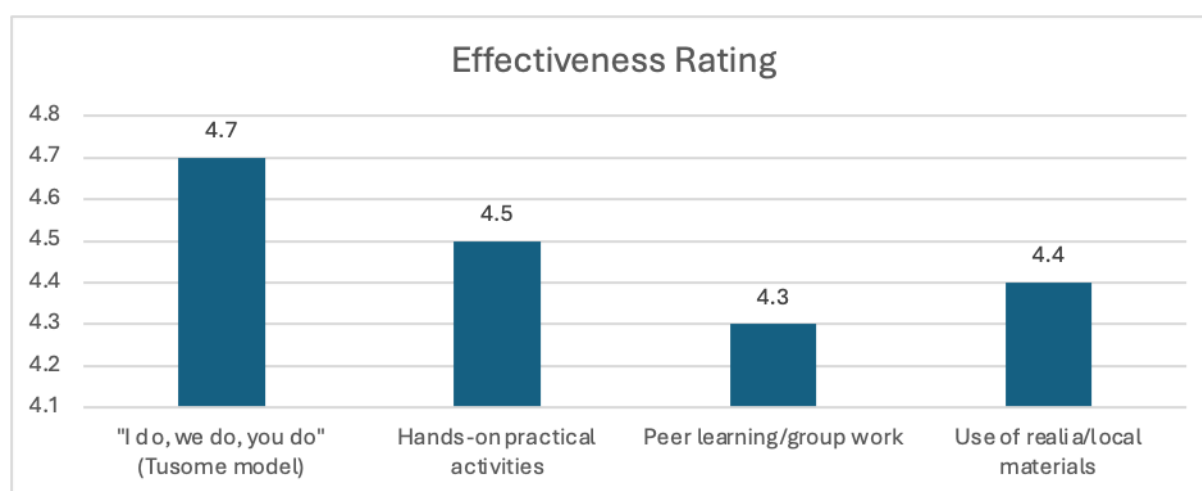
In service Training Approaches and Effectiveness of CBE Implementation

Quantitative Findings

Teachers rated the effectiveness of different training methodologies used during CBC related in-service training. The results are presented in Table 2 and Figure 2 The rating below is based on the Likert scale from Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), Strongly Disagree (SD) ranging from 5 to 1.

Table 2: Teachers' Ratings of Effective In-Service Training Methodologies

Training methodology	Effectiveness rating	Percentage Rating	Citation Frequency
"I do, we do, you do" mode	4.70	94.0	78
Hands on practical activities	4.50	90.0	92
Use of realia/local materials	4.40	88.0	58
Peer learning/group work	4.30	86.0	65

Source: Field Data, 2026**Figure 2: Effectiveness of CBE In-Service Training Methodologies****Source:** Field Data, 2026

From the above figure, the "I do, we do, you do" model received the highest effectiveness rating, followed by hands-on practical activities, use of realia and locally available materials, and peer learning or group work. 82% of the sampled teachers identified the *Tusome* Model's "I do, we do, you do" approach as an effective training methodology. This demonstrated teachers' preference for scaffolded learning in which they observed a strategy, practised it with guidance, and subsequently applied it independently. Realia referred to concrete objects and authentic context relevant instructional materials used to demonstrate CBE concepts. However, teachers did not experience practical training consistently. Approximately 57% described some training sessions as excessively theoretical, 52% reported lecture only delivery without practical demonstrations, 48% identified rushed workshops, and 41% criticised large group lectures. These findings showed that training methodologies varied considerably. Although teachers valued interactive and practice-oriented methodologies, some programmes remained dominated by theoretical and passive delivery.

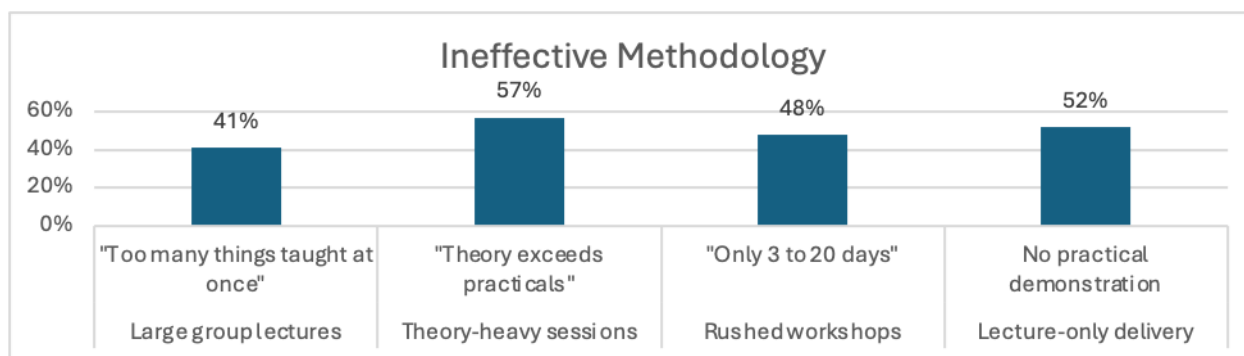


Figure 3: *Ineffectiveness In-Service Training Methodologies*

Source: *Field Data, 2026*

The following null hypothesis was tested. **H₀₂:** Different in-service training methodologies do not significantly influence teachers' ability to effectively implement the CBE. Inferential analysis established a statistically significant association between in-service training methodologies and teachers' reported ability to implement CBE, $p < .01$. Because the probability value was below the significance level of .05, the null hypothesis was rejected. The study therefore concluded that in-service training methodologies significantly influenced teachers' reported ability to implement CBE effectively.

Qualitative Findings

Qualitative data were obtained from teachers' open-ended questionnaire responses and head teachers' interviews. Deductive themes were derived from Research Question Two and its focus on training methodologies. Emergent themes were unexpected but informative patterns that arose directly from participants' accounts.

Deductive Themes

Theme 1: Practical and Hands-On Training

Practical and hands on learning was identified as an effective methodology for developing teachers' CBE implementation skills. Twenty-six teachers specifically emphasised practical and experiential learning. Teacher NTO31 identified "practical learning and use of realia and core competence" (NTO31, Open ended questionnaire, May 2026). Teacher KITH279 stated, "The practical part was most helpful" (KITH279, Open ended questionnaire, May 2026). Teacher DEB203 added, "The hands-on part enhances good assimilation of concepts" (DEB203, Open ended questionnaire, May 2026). Teachers considered practical participation more valuable than passive reception of information. Hands-on training enabled them to experience the learner-centred processes they were expected to facilitate in their classrooms.

Theme 2: Use of Projects, Realia and Learning Materials

Teachers valued training that involved projects, realia and the manipulation of instructional materials. Teacher KITH279 recommended "practical activities such as projects" (KITH279, Open-ended questionnaire, May 2026). Teacher NKM134 valued "the practical part where learners are involved in doing and observing" (NKM134, Open ended questionnaire, May 2026). Teacher

KAT188A explained that “learners manipulate items” (KAT188A, Open ended questionnaire, May 2026). These findings indicated that practical training enabled teachers to understand how to organise learning through observation, experimentation, construction and manipulation. It also demonstrated how locally available materials could support CBE in resource-constrained schools.

Theme 3: Development of Confidence and Learner-Centred Teaching

Practical methodologies strengthened teachers’ confidence and ability to facilitate learner-centred lessons. Teacher KAG116 emphasised “doing activities with learners” (KAG116, Open ended questionnaire, May 2026). Teacher KGT251 stated, “The lesson becomes learner-centred” (KGT251, Open ended questionnaire, May 2026). Teacher KAT182 valued “practical examples and activities that I can use with learners” (KAT182, Open ended questionnaire, May 2026). These responses showed that practical methodologies helped teachers understand how to promote active learner participation and apply CBE principles during instruction.

Theme 4: Limitations of Lecture-Based Training

Teachers reported that lecture dominated training provided limited opportunities for participation, demonstration and practice. Some programmes delivered excessive theoretical content within a short period, making it difficult for teachers to understand and retain CBE skills. Participants indicated that teachers could not develop practical competence when training emphasised theory without opportunities to interact with activities and materials. They therefore preferred demonstrations, simulations, microteaching, collaborative learning, guided practice and feedback to lecture-only delivery.

Emergent Themes

Emergent Theme 1: Application to Wider Professional Responsibilities

An unexpected finding was that practical training supported professional responsibilities beyond classroom instruction. Teachers reported applying training to lesson planning, assessment, record keeping and the preparation of professional documents. Teacher HIL312 identified “practical application through lesson planning” (HIL312, Open ended questionnaire, May 2026). Teacher MWE290 referred to “practical demonstration on how to prepare professional documents” (MWE290, Open ended questionnaire, May 2026). Teacher NTO32 highlighted “practical learning with assessment” (NTO32, Open ended questionnaire, May 2026). This theme expanded the understanding of methodology effectiveness by showing that practical training influenced the entire instructional process, including planning, assessment and professional documentation.

Emergent Theme 2: Information Loss in Cascade Training

Head teachers unexpectedly identified the cascade training model as a source of inconsistent methodology and content delivery. One head teacher explained: “The teacher we send does not always retrain others properly; there is variation in what was taught and a lack of coordination” (KNG, Interview, May 2026). The finding indicated that teachers selected to cascade training might lack the skills, confidence, time or support required to train colleagues effectively.

Consequently, information could be omitted, altered or inconsistently interpreted as it passed through successive training levels.

Emergent Theme 3: Peer Teaching and School Based Support

Head teachers reported developing school-based professional-learning mechanisms to address weaknesses in formal training. These included peer teaching, lesson observation, internal coaching, seminars and digital communication platforms. Head Teacher LIM explained: “One teacher teaches while another observes. This peer teaching has a substantial impact” (LIM, Interview, May 2026). Head Teacher STP stated: “We developed peer teaching, held seminars on improving CBE and acquired materials according to our ability” (STP, Interview, May 2026). Head Teacher NTH added: “They formed WhatsApp groups and teacher peer platforms where they communicate and teach one another” (NTH, Interview, May 2026). These findings revealed that schools were creating continuous and context-responsive professional-learning opportunities to compensate for limitations in formal workshops and cascade training.

Discussion of the Findings

The quantitative findings established that scaffolded, practical and collaborative methodologies were rated more effective than lecture-dominated approaches. The “I do, we do, you do” model received the highest rating, followed by hands-on activities, realia and peer learning. Inferential analysis further established that training methodology significantly influenced teachers’ reported ability to implement CBE, $p < .01$. The qualitative findings supported and expanded these results. Teachers valued practical demonstrations, projects, realia, guided practice and opportunities to apply CBE methods. Practical training strengthened their confidence, learner-centred teaching, lesson planning, assessment and professional documentation. However, lecture based and rushed workshops provided inadequate opportunities for practice and feedback.

These findings support the gradual-release model, in which learners move from demonstration to guided practice and independent application (Pearson & Gallagher, 1983). They also agree with Timperley (2011), who emphasised modelling, practice and feedback in professional learning. Effective teacher development incorporates active learning, collaboration, rehearsal and feedback rather than passive exposure to information (Darling-Hammond et al., 2017; Desimone & Pak, 2017; Opfer & Pedder, 2011).

The findings further correspond with evidence that job embedded professional development is more likely to influence classroom practice (Garet et al., 2001; Penuel et al., 2007). Practical rehearsal and examination of authentic classroom examples enable teachers to connect professional learning with their daily responsibilities (Ball & Cohen, 1999; McLeskey, 2011). Smaller, interactive settings also facilitate participation and individualised feedback (Darling-Hammond et al., 2009).

The emergent findings showed that cascade training could result in information loss or distortion, consistent with Hardman et al. (2012). Conversely, peer teaching, lesson observation and school-based collaboration provided sustained support for classroom implementation (Akiba & Liang,

2016; Avalos, 2011; Lewis et al., 2006; Vescio et al., 2008; Wei et al., 2010). The findings also align with Transformative Learning Theory because modelling, dialogue, practical engagement and reflection enable teachers to reconsider established practices and adopt learner-centred approaches. Overall, CBE training should prioritize demonstration, guided practice, projects, peer learning, classroom observation, feedback and follow-up coaching rather than theory-heavy, large-group workshops.

1.8 Conclusion

After carrying out this study it can be concluded that, trainer competence and training methodology were significant determinants of CBE in-service training effectiveness. Effective trainers required subject knowledge, pedagogical competence, classroom experience, communication skills, practical demonstration ability, and responsiveness.

1.9 Recommendations

The study suggests the following recommendations to various stakeholders: -

The ministry of education to establish standardized trainer-selection and certification procedures; Schools to prioritize demonstration, guided practice, microteaching, collaboration, and feedback; Training institutions to strengthen trainers' adult-learning and practical facilitation skills; also, they should establish peer observation, coaching, and professional learning communities; and conduct systematic school-based follow-up.

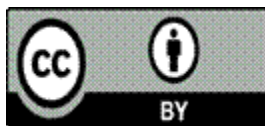
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