Teacher Education in the Advent of Transition of Education Systems in Kenya

Jared M. Mauti[1*], Rose Moindi[2] & George A. Masagara[3]

[1,2] Kisii University, Kenya

[3]Masinde Muliro University of Science and Technology, Kenya

**Corresponding author: mautijaredmomanyi@yahoo.com*

https://doi.org/10.62049/jkncu.v5i2.295

Abstract

Teachers play a pivotal role in the successful implementation of a nation's educational curriculum. In Kenya, their role has become increasingly dynamic due to historical and ongoing transitions in the education system. This paper critically examines the transformation of teacher education in Kenya amidst the national shift from the 8-4-4 system to the Competency-Based Education (CBE), with particular emphasis on curriculum content adaptation, pedagogical reform, assessment practices, stakeholder engagement, and policy realignment. Grounded in empirical studies, national policy reviews, and historical analyses of major education commissions—namely Ominde, Gachathi, and MacKay—the study investigates how teacher education institutions are reorienting instructional strategies to meet the learner-centred, skills-driven demands of competency-based education. It highlights the shift from rote, exam-oriented pedagogies to reflective, participatory, and technologically mediated teaching approaches. However, the analysis reveals persistent challenges, including misalignments between pedagogical theory and classroom practice, limited infrastructure, disparities in digital access, and inadequate continuous professional development (CPD) for both pre-service and in-service teachers. The integration of technology, while promising in advancing instructional innovation, also underscores inequalities between urban and rural institutions. Moreover, the study critiques the efficacy of current stakeholder participation frameworks, noting the need for decentralization and stronger institutional collaboration. The paper concludes that while policy intent is commendable, the successful realization of CBE goals necessitates sustained investment in teacher capacity building, equitable resource allocation, and inclusive access to educational technologies. It recommends a systemic, equity-driven approach to curriculum reform and professional development as critical levers for ensuring quality, relevance, and sustainability in Kenya's teacher education landscape.

Keywords: Teacher Education, Competency-Based Education, Curriculum Adaption, Professional Development, Educational Equity

Introduction

Education systems worldwide are undergoing transformation to respond to the evolving demands of the 21st century. In Kenya, the shift from the long-standing 8-4-4 structure to the Competency-Based Education (CBE) represents one of the most ambitious educational reforms in the country's history. The CBE, officially introduced in 2017, seeks to address the limitations of the exam-oriented, content-heavy 8-4-4 system by emphasizing the holistic development of learners. The new system prioritizes the acquisition of core competencies such as critical thinking, creativity, problem-solving, communication, collaboration, digital literacy, and ethical reasoning—skills deemed essential for individual advancement and national development in a knowledge-based global economy (Ministry of Education, 2017; Kenya Institute of Curriculum Development [KICD], 2020).

The philosophical and pedagogical underpinnings of this shift find resonance in John Dewey's Progressive Education Theory. Dewey (1938) championed the idea of experiential learning—learning that is deeply rooted in real-life contexts and aimed at developing critical, reflective, and socially responsible citizens. Dewey's emphasis on student-centred learning, collaborative inquiry, and the adaptability of educational content to learner needs aligns strongly with the CBE's intent to personalize learning and foster equity. His assertion that education must prepare individuals for participation in democratic life remains particularly relevant in Kenya, where education is not only a tool for personal growth but also for nation-building, civic responsibility, and economic empowerment (Ochieng, 2021; Njogu, 2023).

Historically, Kenyan education reforms have been shaped by policy milestones such as the Ominde Report (1964), which emphasized national unity and modernization; the Gachathi Report (1976), which called for relevance and equity; and the Mackay Report (1981), which introduced the 8-4-4 system to promote practical skills. While each of these reforms addressed critical socio-political needs of their time, the 8-4-4 system eventually came under scrutiny for its overemphasis on examinations, memorization, and insufficient attention to learner diversity, life skills, and inclusive education (Orodho, 2014; Sifuna, 1990). Against this backdrop, the CBE was adopted to realign educational outcomes with Kenya's Vision 2030, the Sustainable Development Goals (SDGs), and the demands of a rapidly globalizing and digitalizing world.

For policymakers and education stakeholders, the CBE represents more than a curricular reform—it is a paradigm shift that redefines the goals, processes, and outputs of the education system. It calls for a re-examination of teacher education, pedagogy, assessment practices, school leadership, and institutional governance. Central to the success of the CBE is the teacher, who is no longer a passive conveyor of content but an active facilitator of learning. This shift in role demands a fundamental transformation in how teachers are trained, mentored, and supported throughout their careers (Mutuku, 2023).

Curriculum Content Adaptation (CCA) within teacher education institutions has therefore emerged as a vital area of focus. Teachers must be equipped not only with pedagogical knowledge but also with practical skills to implement competency-based approaches such as project-based learning, formative assessment, differentiated instruction, and integration of digital tools (Mwenje, 2023; Kimani, 2022). However, structural and operational challenges remain. Many teacher training institutions continue to operate under out-dated frameworks that inadequately address the demands of the CBC. There is often a misalignment between policy directives and classroom realities, compounded by institutional inertia, insufficient

pedagogical innovation, and a lack of capacity in rural and marginalized regions (Ngugi, Ndung'u, & Muthomi, 2022).

Moreover, digital technologies—while offering tremendous opportunities for enhancing teacher capacity—also highlight significant disparities in infrastructure, access, and digital literacy. The COVID-19 pandemic made clear that digital readiness is no longer optional but essential. Yet, many schools and teacher training institutions in Kenya continue to face major hurdles, including poor internet connectivity, lack of hardware, and limited technical support (UNESCO, 2021; KENET, 2024). These challenges risk entrenching existing inequities unless deliberately addressed through targeted investment and inclusive policy implementation.

Continuous professional development (CPD) remains a cornerstone for equipping teachers with up-to-date skills. The Teachers Service Commission (TSC), in collaboration with the Ministry of Education, has launched CPD programs to support CBE implementation. However, concerns persist regarding the adequacy, standardization, and sustainability of these efforts. Inconsistent delivery models, limited resources, and fragmented oversight hinder the effectiveness of teacher retraining, particularly in underserved regions (Wambugu & Mungai, 2023).

For educators and researchers, there is an urgent need to interrogate the extent to which teacher education curricula are adapting to CBE principles. Are teachers being sufficiently prepared to design and deliver learner-centred instruction? Are teacher education programs incorporating reflective practice, technology integration, and values-based learning as core components? What institutional reforms are needed to make curriculum transformation equitable and impactful? These are pressing questions that must be explored if Kenya's educational reform agenda is to be realized meaningfully and sustainably.

From a policy standpoint, the transition to the CBE offers a unique window of opportunity to overhaul not just curriculum content, but also the broader educational ecosystem. Policymakers must prioritize equitable financing mechanisms, strengthen teacher education institutions, promote inclusive technological infrastructure, and develop robust quality assurance systems. Teacher educators, curriculum developers, and education researchers must work collaboratively to ensure that reform is evidence-based, context-sensitive, and forward-looking (UNESCO, 2021).

This study situates the on-going education reform in Kenya within the broader context of progressive pedagogical theory and socio-political realities. It argues that for the CBE to achieve its transformative goals, curriculum content adaptation in teacher education must be systemic, equitable, and aligned with contemporary educational imperatives. By anchoring the discussion in both theoretical insights and empirical observations, this paper contributes to the policy discourse on how to strengthen teacher preparation as a catalyst for delivering quality, inclusive, and future-ready education in Kenya.

Curriculum Content Adaptation

In the ongoing transformation of education systems in Kenya—particularly under the Competency-Based Education (CBE) framework—Curriculum Content Adaptation (CCA) has emerged as a central pillar in shaping teacher education and instructional reform (Oduor et al., 2022). CCA refers to deliberate modifications of educational content to align with contemporary curricular imperatives, the evolving needs of learners, and changing local and global contexts (MoEST, 2019). Its significance is especially evident in the transition from traditional teacher-centred approaches to learner-centred models envisioned by CBE,

where pedagogy is anchored on skills development, inquiry-based learning, and real-world applicability (UNESCO, 2021). Historically, curriculum reform in Kenya has been driven by the recommendations of various education commissions. The Ominde Commission (1964), for example, laid the foundation for Africanisation and national unity post-independence. The Gachathi Report (1976) later emphasized relevance in curriculum content, including the need for technical and vocational education, while the Mackay Report (1981) was instrumental in establishing the 8-4-4 system with a focus on self-reliance. These transitions reflect how education commissions have consistently aligned content and structure to emerging socio-political demands. The current shift to CBE represents another milestone in this continuum. Recent studies (Otieno & Mugambi, 2022; Muthoni, 2021) indicate that CCA is vital in reshaping teacher education curricula, equipping pre-service teachers with not only theoretical understanding but also practical competencies for implementing CBE. However, challenges persist. Nyamwange et al. (2023) point out that many teacher training institutions lag in aligning with the new framework, posing risks to the quality and readiness of teacher graduates. In addition to content, Kariuki (2023) emphasizes the importance of adopting progressive pedagogies such as project-based and experiential learning, which mirror the holistic, competency-focused nature of CBE. Yet, implementation is uneven. While urban institutions benefit from digital infrastructure and access to professional development, rural colleges often face constraints such as understaffing, poor connectivity, and minimal exposure to policy dialogue, thus perpetuating educational inequalities. Moreover, as Onyango et al. (2023) argue, in-service teacher professional development remains critical for the effective realization of CBE. Despite its potential, disparities in access to CPD, particularly in marginalized regions, continue to challenge the goal of nationwide educational equity.

Teacher Competency and Skills Development

As Kenya transitions to the Competency-Based Education (CBE) framework, the role of teacher competency has come under increased scrutiny. Teachers are now expected to embrace a dynamic and adaptable teaching methodology that facilitates critical thinking, creativity, and learner autonomy. However, as Kinyanjui (2023) found, a lack of sufficient preparation among educators in CBE-specific pedagogies has led to inconsistent implementation across Kenyan schools. Many educators, especially those trained under the traditional 8-4-4 system, continue to rely on outdated teaching models, thereby undermining the learner-centred goals of the new curriculum. Omondi (2023) notes that this gap is more severe in rural areas where access to professional development and CBE-aligned training is limited. To bridge this gap, Continuous Professional Development (CPD) programs have emerged as crucial interventions. Wanjala (2024) highlights a strong correlation between regular participation in CPD and effective CBE implementation. Teachers who undergo annual training in CBE-aligned strategies tend to be more innovative, confident, and responsive to learner needs than those who do not. However, Mwangi (2023) identifies persistent challenges in the CPD ecosystem, including limited funding, logistical barriers, and resistance to pedagogical change among some educators. Without consistent monitoring and follow-up, these programs may fail to bring about meaningful improvement. Additionally, as Njoroge (2023) found, the level of teacher competency directly influences learner engagement and academic performance. Schools where teachers possess strong competencies in learner-centred approaches show higher levels of student participation and achievement. Attitudes towards reform also play a critical role. Teachers who view CBE as a professional growth opportunity are more likely to adopt new practices successfully. Conversely, resistance to change can hinder effective implementation, compromising educational

outcomes. These findings reinforce global literature on the centrality of teacher quality in curriculum reform, stressing the need for a holistic approach that includes technical skill development, attitudinal change, and continuous capacity building.

Technology Integration

The integration of technology into teacher education has become a vital component in Kenya's educational reform, especially within the context of CBE implementation. As traditional, exam-centric teaching models give way to more interactive and learner-centred pedagogies, digital tools are increasingly being employed to enhance instructional delivery and content engagement. According to Kwayu, Lal, and Abubakre (2024), technology serves as a key enabler of instructional innovation, empowering teachers to design more interactive, relevant, and skills-oriented learning experiences. This shift is critical as CBE prioritizes competencies such as problem-solving, creativity, and collaboration. However, despite its transformative potential, technology integration remains uneven across the country. Otiende, Nyambura, and Mwangi (2023) reveal that rural and under-resourced teacher training institutions face persistent challenges including inadequate digital infrastructure, lack of technical support, and limited access to internet connectivity. These disparities reinforce the digital divide and hinder the uniform implementation of technology-enhanced learning. Moreover, Wambua and Kamau (2024) argue that the success of technology integration hinges on targeted CPD programs that build both digital literacy and pedagogical proficiency. Without these, the intended benefits of educational technologies may not be fully realized. The Ministry of Education (2023) also reports that schools effectively utilizing digital platforms tend to experience improved student performance, particularly in STEM subjects. However, the African Digital Education Network (2024) cautions that current inequalities in digital access threaten to exacerbate existing disparities, particularly between urban and rural schools. These challenges point to a need for policy interventions that prioritize equitable access to digital resources, capacity-building initiatives, and infrastructure investment. As Kenya continues to implement CBE, the integration of technology in teacher education must be approached not only as an innovation strategy but also as a social justice imperative to ensure all learners benefit from high-quality, future-ready instruction.

Pedagogical Approaches

Pedagogical approaches refer to the strategies, methods, and styles employed by educators to facilitate learning. In the Kenyan context, particularly within teacher education, these approaches have had to evolve significantly in response to shifts in educational philosophy, most notably the transition from the 8-4-4 system to Competency-Based Education (CBE). Historically, this transition has been influenced by landmark commissions, including the Ominde Commission (1964), which advocated for Africanization of the curriculum post-independence and emphasized science and practical subjects. The Gachathi Report (1976) further emphasized relevance and equal access to education, while the Mackay Report (1981) introduced the 8-4-4 system, advocating for technical and vocational skills. More recently, the Koech Commission (1999) proposed the Totally Integrated Quality Education and Training (TIQET), recommending a more holistic curriculum, which paved the way for the current CBC reforms (Republic of Kenya, 1999; Sifuna & Sawamura, 2023). In line with these historical shifts, contemporary teacher education in Kenya now emphasizes learner-centered pedagogy, critical thinking, and problem-solving over rote memorization. According to Oluoch (2023), this pedagogical realignment aligns with global

educational trends that favor experiential and participatory teaching strategies, especially in preparing teachers to foster 21st-century competencies among learners.

Recent scholarship indicates a marked increase in the use of collaborative learning, peer engagement, and technology integration in teacher education programs. The CBE's emphasis on hands-on, practical experiences has compelled institutions to design curricula that incorporate digital tools, group-based projects, and interactive learning modalities. Koech et al. (2024) argue that these shifts are not only in harmony with international best practices but also serve to transform classrooms into dynamic environments where learners actively co-construct knowledge with their teachers. Reflective practices have also gained prominence. Mwangi (2024) notes that effective teacher education programs now embed reflective teaching as a foundational approach, enabling future teachers to assess their teaching methods, adapt to diverse learner needs, and continuously improve. This is particularly vital in Kenya's multicultural and socio-economically diverse educational landscape.

However, implementing these pedagogical reforms has not been without challenges. Many teacher training colleges still face infrastructural and resource constraints. For instance, while technology is central to modern pedagogy, a majority of institutions lack robust ICT infrastructure. Wanjiru (2024) highlights that such deficiencies severely limit educators' capacity to leverage digital learning tools. Compounding this issue is a persistent gap between pedagogical theory and classroom practice. Kamau and Njenga (2024) reveal that a significant number of in-service teachers were trained under older, content-heavy frameworks and receive minimal professional development to transition effectively into the CBE environment. This mismatch often leads to the reversion to traditional, teacher-centered methods that are incompatible with the goals of CBE.

Despite these constraints, there is cautious optimism about the future of teacher education in Kenya. Increased attention is being paid to the need for sustained professional development and institutional capacity building. Ngugi (2024) notes that partnerships among government bodies, NGOs, and private sector stakeholders are beginning to yield dividends by offering training opportunities, resource support, and digital infrastructure. These collaborative efforts hold the potential to narrow the implementation gap and accelerate the full adoption of progressive pedagogical approaches throughout the country's teacher training system.

Assessment Methods

The transformation of Kenya's education system through the introduction of CBE necessitates a re-evaluation of assessment practices within teacher education. Traditional summative assessments, which primarily test content recall under high-stakes examination settings, are increasingly being replaced—or at least complemented—by formative, competency-based assessments. This shift is in direct response to the evolving expectations of the new curriculum, which prioritizes skills development over content mastery. Mokaya (2023) argues that assessments now need to reflect learners' abilities to demonstrate competencies such as creativity, collaboration, and critical thinking. However, translating this policy intention into institutional practice has proved complex and uneven.

Kamau (2024) reveals that only about 30% of teacher education programs in Kenya have successfully embedded formative, performance-based assessments into their curricula. This gap suggests that while the rhetoric of competency-based assessment is widespread, implementation is lagging. Omondi (2024)

attributes much of this to limited educator capacity; many teacher educators themselves have not received adequate training on designing and administering formative assessments. As a result, they default to the more familiar summative modes of assessment, thus undermining the spirit of CBE. This inconsistency poses a significant risk, as teacher trainees may graduate without the necessary skills to conduct ongoing learner assessments effectively in real classroom settings.

Infrastructural limitations further compound these challenges. The Ministry of Education (2024) reports that more than half of Kenya's teacher training colleges lack the digital infrastructure required for modern assessment practices. Without access to learning management systems, electronic portfolios, or online feedback tools, institutions struggle to implement real-time, personalized assessment mechanisms. This is particularly troubling given that digital assessments are integral to the broader aims of CBE, especially in fostering individualized learning pathways.

Nonetheless, there is evidence that when competency-based assessments are effectively integrated into teacher education, the results are markedly positive. Teachers trained under such systems demonstrate higher confidence levels and a better grasp of how to align assessment with learning outcomes (KICD, 2024). Mokaya (2023) underscores that teachers exposed to both formative and summative assessments during their training are more adept at designing evaluations that capture a spectrum of learner abilities, thus fostering deeper learning. This reinforces the argument that transforming assessment in teacher education is not just a technical exercise but a pedagogical imperative that demands systemic investment, professional development, and sustained policy support.

Stakeholder Engagement

Effective stakeholder engagement remains a cornerstone of successful education reform, particularly in transitional contexts like Kenya's shift to CBE. Historically, commissions such as the Gachathi Report and Koech Report emphasized the need for participatory policy-making and localized educational planning. However, despite these recommendations, stakeholder involvement in the current transition remains uneven. Key actors—including the Ministry of Education (MoE), Teachers Service Commission (TSC), Kenya Institute of Curriculum Development (KICD), teacher training institutions, and development partners—have been instrumental in policy formulation and curriculum redesign. Ngome (2019) notes that this inter-agency collaboration is central to aligning curriculum development with teacher education and deployment frameworks.

However, the decision-making process has largely remained centralized. Educationnewshub.co.ke (2023) and SpringerLink (2023) report that sub-national actors such as county education officers, school heads, and classroom teachers have had minimal involvement in policy development and implementation monitoring. This disconnect creates a bottleneck, particularly in understanding local challenges and adjusting training programs to fit diverse regional contexts. Consequently, disparities emerge in how reforms are interpreted and executed across the country. For example, some regions have proactively engaged with CBE through locally organized training workshops, while others remain largely uninformed due to poor communication channels between the national and local levels.

Wider stakeholder inclusion—particularly of parents, school boards, and community leaders—is also essential for public trust and curriculum legitimacy. Yet current engagement strategies often prioritize technical experts over grassroots actors. The situation underscores the need for a more inclusive

engagement framework that accommodates both top-down directives and bottom-up feedback mechanisms. The growing role of non-state actors, including private sector entities and NGOs, is another dimension of stakeholder engagement that warrants emphasis. These actors provide critical support, particularly in teacher training, digital infrastructure, and resource mobilization (Ngome, 2019). Strengthening multi-stakeholder collaboration thus remains central to ensuring that educational reforms, especially those as systemic as CBE, are both inclusive and sustainable.

Policy and Institutional Support

Kenya's transition to the Competency-Based Education has relied heavily on policy and institutional support mechanisms to reshape teacher education in line with the demands of 21st-century learning. Key policy frameworks—including the Basic Education Curriculum Framework (BECF), the Teacher Education Framework, and revised Teacher Service Commission (TSC) guidelines—form the backbone of this transformation. KICD (2023) reports that policy reforms have been instrumental in revising the pre-service and in-service teacher education curricula to include competency-based methodologies, critical thinking, and reflective teaching. The Ministry of Education has further emphasized the importance of Continuous Professional Development (CPD) to ensure that in-service teachers remain aligned with evolving pedagogical expectations (MOE, 2023).

Institutional support, particularly from teacher training colleges and universities, is equally critical. Ong'ondo (2023) notes that many institutions have overhauled their programs to incorporate learner-centered approaches and formative assessments. However, these shifts require significant investment in faculty development, curricular redesign, and infrastructure modernization. Institutions also rely on external partnerships to supplement limited public funding. A 2024 study by the Kenya Education Network (KENET) shows that digital partnerships have enabled several teacher education institutions to develop online training modules and digital libraries, significantly enhancing access to pedagogical resources.

Nonetheless, disparities persist, particularly between urban and rural institutions. Wanjohi (2025) highlights that rural colleges often lack the financial and human resource capacity to implement CBE effectively. This uneven landscape threatens to entrench educational inequality, particularly if policy support does not prioritize equity in resource allocation. Ensuring that institutional reforms are accompanied by targeted funding, inclusive governance, and robust monitoring systems is therefore crucial to sustaining gains in teacher education.

This theoretical analysis of teacher education in Kenya during a period of systemic transition highlights the complex interplay of pedagogy, assessment, stakeholder engagement, and policy support in shaping reform outcomes. As Kenya moves from the 8-4-4 model to the more holistic, skills-based Competency-Based Education framework, the role of well-prepared teachers cannot be overstated. The historical trajectory of reforms, beginning with the Ominde, Gachathi, Mackay, and Koech commissions, illustrates a progressive shift toward relevance, inclusivity, and adaptability in education. Yet, despite encouraging developments, significant challenges remain. These include: inadequate infrastructure, limited professional development opportunities, and gaps in stakeholder engagement. Addressing these barriers requires sustained political will, inclusive policymaking, and strong inter-sectorial partnerships. If these efforts are realized, teacher education in Kenya stands to become not just a driver of curriculum implementation, but a model for educational transformation in Africa.

Conclusion

The transition from Kenya's 8-4-4 system to the Competency-Based Education (CBE) represents a transformative shift toward learner-centered, skills-oriented education. This paradigm shift has necessitated comprehensive reforms in teacher education to ensure that educators are well-prepared to facilitate the goals of CBE. The findings of this study indicate that while foundational steps have been undertaken—such as the inclusion of formative assessments and the redesign of pedagogical strategies—numerous systemic and institutional challenges persist. These include: disparities in resource distribution, underdeveloped infrastructure in rural training institutions, limited capacity-building opportunities for both pre-service and in-service teachers, and inadequate integration of digital and inclusive teaching practices.

Moreover, the historical evolution of education policy in Kenya—from the Ominde to the Mackay commissions—demonstrates an enduring gap between policy intentions and classroom realities. Effective CBE implementation, therefore, demands not only curriculum redesign, but also deliberate institutional, structural, and cultural realignments. For teacher education reforms to be effective, they must be grounded in robust professional development frameworks, participatory governance models, equitable resource distribution, and contextually responsive monitoring and evaluation mechanisms. Without sustained policy coherence, strategic investment, and multi-stakeholder collaboration, the broader aspirations of CBE—equity, inclusion, innovation, and socio-economic transformation—risk being undermined by persistent systemic inequities.

Recommendations

Institutionalize Continuous Professional Development (CPD) Programs. A robust and ongoing CPD framework should be developed to enhance the pedagogical, technological, and ethical competencies of both pre-service and in-service teachers. These programs must be accessible, context-sensitive, and aligned with CBE goals, incorporating blended learning models to reach educators in remote and underserved regions (Waweru & Simiyu, 2022).

Revise Teacher Education Curricula to Reflect CBE Realities. Institutions training teachers should redesign their programs to bridge the gap between theory and classroom practice. This involves embedding real-life practicum experiences, formative assessments, and ICT integration in teacher preparation programs to align with the competency-based ethos (Ong'ondo, 2021).

Ensure Equitable Resource Allocation. The Ministry of Education and its partners should prioritize the equitable distribution of infrastructure and learning materials. Teacher training institutions, especially in rural areas—require modern libraries, digital tools, internet connectivity, and inclusive teaching aids to enable effective CBE delivery (Mugo et al., 2023).

Enhance Stakeholder Engagement and Decentralized Governance. Inclusive and decentralized stakeholder engagement is essential. Community leaders, parents, education officers, and school boards should actively participate in localized decision-making and feedback forums to contextualize CBE implementation and enhance community ownership (Ndayambaje & Wambugu, 2020).

Align Assessment Frameworks with CBE Objectives. Assessment reforms should move beyond high stakes testing to emphasize formative, holistic evaluation practices. Teachers must be trained to use diverse tools

that assess collaboration, creativity, ethical reasoning, and practical competencies in line with CBE learning outcomes (KICD, 2022).

Develop Robust Monitoring and Evaluation (M&E) Systems. A data-driven and contextually adaptive M&E framework should be institutionalized to monitor progress in curriculum adaptation and teacher education reform. Regular impact assessments and feedback loops are essential for informing evidence-based adjustments in implementation strategies (MoE, 2021).

Strengthen Capacity-Building for Teacher Educators. Teacher educators play a pivotal role in cascading CBE principles to pre-service teachers. Regular capacity-building initiatives should be conducted to enhance faculty expertise in innovative pedagogy, inclusive practices, and digital instruction (Njogu & Kabiru, 2022).

Promote Multi-Sectoral Partnerships for Sustainability. Sustainable reform requires collaborative partnerships among government agencies, universities, NGOs, teacher unions, and community organizations. These alliances can consolidate resources, foster innovation, and ensure continuity in curriculum reforms (UNESCO, 2023).

Reinforce Policy Coherence and Institutional Coordination. The Ministry of Education, Teachers Service Commission (TSC), and Commission for University Education (CUE) must harmonize their roles to ensure cohesive CBE implementation. A unified framework with clear mandates and inter-agency coordination mechanisms will minimize duplication and enhance policy synergy (Republic of Kenya, 2022).

Support Inclusive Policy Development and Implementation. CBE policies must reflect Kenya's socio-cultural, linguistic, and geographical diversity. Special attention should be given to learners with special needs and marginalized communities to ensure equity and inclusion in curriculum content adaptation and teacher preparation (Mwangi & Obiero, 2021).

By addressing these interconnected challenges—pedagogical innovation, resource equity, institutional capacity, inclusive policy, and participatory governance—Kenya has the opportunity to build a resilient, future-oriented teacher education system. Such a system will not only support the full realization of the CBE but will also contribute meaningfully to the broader goals of lifelong learning, national cohesion, and sustainable development.

References

African Digital Education Network. (2024). *Digital divide in Kenyan schools: An analysis of urban-rural disparities*. Nairobi: ADEN Press. *Educationnewshub.co.ke*. (2023). Stakeholders' roles in teacher education reform in Kenya.

Dewey, J. (1938). Experience and Education. Macmillan.

Educationnewshub.co.ke. (2023). *Gaps in stakeholder engagement during CBC rollout*. Retrieved from https://educationnewshub.co.ke

Kwayu, M., Lal, B., & Abubakre, M. (2024). Technology integration in teacher education: Lessons from Kenya's education reform. *Journal of Educational Technology, 19*(2), 87-102.

Kamau, J. (2024). Assessing the Integration of Competency-Based Assessments in Teacher Training Colleges in Kenya. *Journal of Education Systems, 29*(1), 45-60.

Kamau, J., & Njenga, M. (2024). *Challenges in Implementing CBC in Kenyan Classrooms: A Focus on Teacher Preparedness*. Nairobi: African Research Journal.

Kariuki, L. M. (2023). *Pedagogical Shifts in Teacher Education: Aligning with Kenya's Competency-Based Curriculum*. Nairobi: Kenyatta University Press.

Kariuki, P. (2023). *Pedagogical Innovations in the Competency-Based Curriculum: Challenges and Opportunities in Teacher Education*. Nairobi: African Research Institute.

Kenya Institute of Curriculum Development (KICD). (2024). *Evaluation of Teacher Preparedness for the Competency-Based Curriculum in Kenya*. KICD Reports.

Kenya Institute of Curriculum Development (KICD). (2023). *Curriculum Reforms and Teacher Education in Kenya: Aligning with the Competency-Based Curriculum*. Nairobi: KICD.

KICD. (2022). *Reforming assessment practices in the CBC: A policy brief*. Kenya Institute of Curriculum Development.

Kenya Institute of Curriculum Development. (2020). *Curriculum reforms: Towards a 21st century competency-based curriculum*. Nairobi: KICD.

Kenya Education Network (KENET). (2024). *Enhancing Teacher Education through Technology: The Role of Digital Platforms in the CBC Era*. Nairobi: KENET.

Kenya Presidential Working Party on the Second University in Kenya. (1981, September). *Second University in Kenya: Report of the Presidential Working Party* (C.B. Mackay, Chair). Nairobi: Republic of Kenya

Kenya National Committee on Educational Objectives and Policies. (1976). *Report of the National Committee on Educational Objectives and Policies* (P.J.Gachathi, Chair). Nairobi: Government Printer.

Kenya. (1964). *Kenya Education Commission Report* (Vol. 1, S.H. Ominde, Chair). Nairobi: Government Printer.

Kimani, P. M. (2022). *Teacher preparedness for competency-based curriculum implementation in Kenya: A case of public teacher training colleges*. Nairobi: Kenya Literature Bureau.

Kinyanjui, P. (2023). *Challenges in the Implementation of the Competency-Based Curriculum in Kenya*. Journal of Education and Practice, 14(2), 45-57.

Koech, P., Mwangi, M., & Wanjiru, E. (2024). The Role of Technology in Teacher Education: A Case Study of Kenyan Teacher Training Colleges. *International Journal of Educational Technology, 12*(3), 45-60.

Mokaya, P. (2023). Teacher education and the transition to the competency-based curriculum: Challenges and opportunities. *African Journal of Education, 42*(3), 112-130.

Mwangi, J. (2023). Professional Development and Teacher Competency in Kenya's CBC Era. *African Journal of Education, 29*(3), 112-125.

Mwangi, S. (2024). Reflective Practices in Teacher Education: The Kenyan Experience. *Journal of Pedagogical Research, 18*(2), 78-91.

Mwangi, P. N., & Obiero, M. M. (2021). Special needs education and inclusive policy development in Kenya. *International Journal of Inclusive Education Research, 2*(2), 51–65.

Mwenje, J. (2023). Teacher readiness in CBC implementation. Kenyan Journal of Education. Ministry of Education. (2024). *ICT Infrastructure and its Role in Competency-Based Assessment Implementation in Teacher Training Colleges*. Government of Kenya.

Ministry of Education. (2024). *Status Report on Digital Infrastructure in Teacher Training Colleges in Kenya*. Nairobi: Government of Kenya.

Ministry of Education. (2023). *Impact of technology in education: A report on Kenyan schools*. Nairobi: Ministry of Education.

Ministry of Education (MOE). (2023). *Teacher Education Policy Framework in the Era of CBC Implementation*. Nairobi: Government Printer.

MoE. (2021). *Annual education sector performance report*. Ministry of Education, Republic of Kenya.

Ministry of Education, Science and Technology (MoEST). (2019). *Basic Education Curriculum Framework*. Nairobi: Kenya Institute of Curriculum Development.

Ministry of Education. (2017). *Sessional Paper No. 1 of 2019 on a policy framework for reforming education and training for sustainable development in Kenya*. Nairobi: Government Printer.

Mokaya, P. (2023). Teacher Education and the Transition to the Competency-Based Curriculum: Challenges and Opportunities. *African Journal of Education, 42*(3), 112-130.

Muthoni, J. W. (2021). Challenges and prospects of implementing CBC in Kenyan teacher education. *International Journal of Education and Research, 9*(4), 55–67.

Mugambi, J.K. (2022) Challenges and Prospects of Teacher Professional Development in the Implementation of Competency-Based Curriculum in Kenya. *East African Journal of Educational Research, 7(1), 78-92.*

Mugo, J. K., Chege, F., & Oloo, L. M. (2023). Infrastructure inequality and CBC readiness in Kenyan teacher colleges. *East African Journal of Education and Social Sciences*, *4*(1), 34–49.

Muthoni, J. W. (2021). Challenges and prospects of implementing CBC in Kenyan teacher education. *International Journal of Education and Research*, 9(4), 55–67.

Mutuku, E.S. (2023). *Teacher preparedness for inclusion and support of Children with Specific Learning Disabilities in Public Schools: A study of Mutituni Zone in Machakos County* (Master's thesis). University of Nairobi.

Ndayambaje, G., & Wambugu, P. (2020). Decentralization and stakeholder participation in educational reforms. *African Education Review*, *17*(4), 521–539.

Ngugi, A. (2024). *Public-private partnerships in education reform*. Nairobi: Policy Watch Institute.

Ngugi, M. W., Ndung'u, L., & Muthomi, J. M. (2022). Challenges facing teacher education in the transition to competency-based curriculum in Kenya. *Journal of Education Policy and Reform, 10*(4), 233–249.

Njogu, J. N., & Kabiru, C. W. (2022). Enhancing faculty competencies for CBC implementation in Kenya. *Teacher Education Journal of Kenya*, *13*(2), 77–92.

Njogu, K. (2023). Collaborative learning in CBC classrooms. *International Journal of Pedagogical Studies*.

Njoroge, L. (2023). Teacher Attitudes and Their Impact on the Implementation of the Competency-Based Curriculum in Kenya. *Education Research International, 12*(4), 79-89.

Nyamwange, J., Atieno, C., & Oloo, F. (2023). Curriculum adaptation in teacher training colleges in Kenya: An analysis of CBC preparedness. *East African Journal of Education and Social Sciences*, 4(2), 112–126.

Nyamwange, C., & Kamau, J. (2023). Aligning Teacher Education Curricula with Competency-Based Curriculum: An Evaluation of Kenyan Institutions. *International Journal of Educational Development, 92*, 102-115.

Ngome, M. S. (2019). Stakeholder Participation in Improving Access to and Success in Education: The Kenyan Experience. *International Journal of Academic Research in Public Policy and Governance*, 6(1), 80-87.

Ngugi, A. (2024). Public-Private Partnerships in Education: Bridging the Resource Gap in Kenya. *Journal of African Education, 9*(1), 102-118.

Ochieng, R. (2021). Understanding CBC in Kenya: Transforming learning approaches. *East African Educational Review.*

Oduor, P., Wambua, D., & Mwakio, J. (2022). Reforms in teacher education for competency-based education in Kenya. *African Educational Review*, 16(1), 33–45.

Omondi, R. (2024). Capacity Building in Teacher Education: Bridging the Gap between Traditional and Competency-Based Assessments. *Educational Review, 35*(2), 78-95.

Orodho, J. A. (2014). Policies on free primary and secondary education in East Africa: Are Kenya and Tanzania on course to attain Education for All (EFA) goals by 2015? *International Organization of Scientific Research (IOSR) Journal of Humanities and Social Science (IOSR-JHSS)*, *19*(1), 11–20. https://doi.org/10.9790/0837-19111120

Onyango, R., Kimani, G., & Chege, P. (2023). Bridging the gap: Continuous professional development for CBC in-service teachers. *Kenya Journal of Teacher Education*, 5(1), 77–93.

Onyango, S., & Mwangi, G. (2023). Continuous Professional Development and Curriculum Content Adaptation in Kenya: Implications for Teacher Effectiveness. *Journal of Curriculum Studies, 55*(3), 330-345.

Omondi, E. (2024). Challenges in implementing competency-based assessment in TTCs. *Journal of Educational Assessment and Policy, 11*(1), 22–39.

Omondi, R. (2023). *Rural-Urban* Disparities in Teacher Training for Kenya's Competency-Based Curriculum. *Rural Education Review, 16*(2), 90-103.

Otieno, H., & Mugambi, M. (2022). Rethinking content delivery under CBC: A pedagogical perspective. *Journal of Curriculum Studies in Africa, 11*(3), 89–105.

Otiende, T., Nyambura, L., & Mwangi, J. (2023). Challenges in integrating technology in teacher education in Kenya. *East African Journal of Education, 15*(1), 23-39.

Oluoch, T. (2023). *Adapting Pedagogy to the Competency-Based Curriculum: A Kenyan Perspective*. Nairobi: University of Nairobi Press.

Ong'ondo, C. O. (2023). *Teacher Education and Curriculum Reform in Kenya: A Focus on Competency-Based Learning*. Nairobi: University of Nairobi Press.

Ong'ondo, C. (2021). Bridging the theory-practice gap in Kenyan teacher education. *Journal of Curriculum and Teaching*, *10*(3), 89–98.

Republic of Kenya. (2022). *Education sector strategic plan 2022–2026*. Government Printer.

Republic of Kenya. (1999). *Report of the Commission of Inquiry into the Education System of Kenya (Koech Report)*. Nairobi: Government Printer.

Sifuna, D. N., & Sawamura, N. (2023). Challenges of education reform in Kenya. *African Education Studies Review, 21*(2), 87–102.

Sifuna, D. N. (1990). *Development of education in Africa: The Kenyan experience*. Nairobi: Initiative Publishers.

SpringerLink. (2023). Nurturing Every Learner's Potential: Education Reform in Kenya.

UNESCO. (2023). Multi-sectoral approaches to education transformation: Global report on partnerships in curriculum reform. *UNESCO Publishing*.

UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. Paris: UNESCO.

Wambua, M., & Kamau, S. (2024). *Professional development and technology integration in Kenyan teacher education*. *International Journal of Teacher Education, 10*(3), 56-71.

Wambugu, G. M., & Mungai, N. J. (2023). Bridging the digital divide: The role of ICT in CBC implementation in rural Kenyan schools. *International Journal of Educational Technology and Learning*, *13*(2), 120–129. https://doi.org/10.20448/journal.509.2023.132.120.129

Wanjala, T. (2024). Continuous Professional Development and Its Impact on Teacher Competency in Kenya's Education System. *Global Education Journal, 18*(1), 56-68.

Wanjiru, E. (2024). *Barriers to ICT Integration in Kenyan Teacher Education*. *International Journal of Digital Learning, 15*(1), 33-47.

Wanjohi, A. M. (2025). *Implementation Challenges and the way forward. Schools Net Kenya. Retrieved June 15,2025 from https://schoolsnetkenya.com/cbc-implementation-challenges -and-the-way-forward/*

Waweru, M.N. (2020) Reforming Kenya's Education System: Policy Perspectives on the Shift from 8-4-4 to Competency-Based Curriculum. *African Journal of Education and Development, 5 (2), 34-46.*

Waweru, J. N., & Simiyu, C. (2022). Continuous professional development for CBC: A case for in-service teachers in Kenya. *African Journal of Educational Development*, *12*(4), 132–s148.