

# Aligning Competencies with Opportunity: Industry-Driven Curriculum Design, Implementation Fidelity, and Graduate Employability in Kenya's Competency-Based Education System

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## Abstract

*Sub-Saharan Africa faces a structural education-employment crisis: youth unemployment routinely exceeds 30%, skills mismatch is widely documented as a primary impediment to economic transformation, and successive curriculum reforms have failed to close the gap between educational output and labour market need (ILO, 2023; Wawire et al., 2025). In Kenya, graduate unemployment and unemployability constitute a longstanding structural challenge documented more than a decade before the current reform was designed (Ponge, 2013; KIPPR, 2009), yet no intervention has comprehensively resolved it. Against this backdrop, Kenya's 2017 Competency-Based Curriculum (CBC) reform represents an ambitious attempt to resolve a structural graduate unemployability crisis that predates the reform itself. This article synthesises evidence across CBC design quality, implementation fidelity, and graduate employability through an integrated three-level analytical framework combining constructive alignment theory (Biggs, 1996), implementation fidelity science (Carroll et al., 2007), and Tomlinson's (2017) graduate capital model. The framework reveals a systematic design-enactment-outcomes alignment gap: while the CBC's seven core competencies demonstrate commendable constructive alignment with pre-reform employability deficits, severe implementation fidelity deficits – only 3% of teachers were adequately prepared at rollout, fewer than 40% of junior secondary schools have adequate infrastructure, and competency assessments show 22% construct validity – undermine transformative potential. A fundamental temporal paradox renders direct employability evaluation impossible until 2031–2032. Six priority interventions are proposed: practice-embedded teacher development, assessment validity reform, formalised industry-pathway advisory structures, a graduate and labour market information system, equity-centred pathway governance, and longitudinal evaluation infrastructure.*

**Keywords:** Competency-Based Curriculum; Curriculum Alignment; Graduate Employability; Implementation Fidelity; Kenya; Education Reform; Industry Engagement; Graduate Unemployability; Global South

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## 1. Introduction

The relationship between education systems and labour markets constitutes one of the most contested terrains in comparative education scholarship (Tomlinson, 2012; Wheelahan, 2010; Wawire et al., 2025). In Sub-Saharan Africa, where youth unemployment routinely exceeds 30% and skills mismatch impedes economic transformation, curriculum reform has been positioned as a primary policy lever (ILO, 2023; World Bank, 2022). Kenya's Competency-Based Curriculum (CBC), formally launched in 2017 under the Basic Education Curriculum Framework (BECF) of the Kenya Institute of Curriculum Development (KICD), replaces the

content-heavy, examination-driven 8-4-4 system in place since 1985. The reform restructures learning across a 2-6-3-3-3 progression, defines seven core competencies, and culminates in pathway-differentiated Senior School streams tied to Kenya Vision 2030 and the Presidential Working Party on Education Reform (Republic of Kenya, 2023). The reform's workforce development ambitions are anchored specifically in Kenya's Big Four Agenda – manufacturing, food security, affordable housing, and healthcare – as the productive sectors expected to absorb CBC graduates and drive economic transformation toward Vision 2030's middle-income targets (Republic of Kenya, 2023).

The urgency of this reform is not merely economic. Unaddressed graduate unemployment generates cascading social consequences – criminal activity, substance addiction, psychological disorders, and erosion of social cohesion (KIPPRA, 2009; Ponge, 2013). Writing over a decade before CBC's launch, Ponge (2013) diagnosed the structural conditions necessitating reform with striking prescience: skills mismatch, inadequate university-industry information flows, pedagogies centred on associative reasoning, absence of life skills training, and lack of work experience – a diagnosis that remains substantially accurate in 2026. This article engages three interlocking research questions: How effectively does Kenya's CBC design incorporate industry-driven curriculum principles? What does available evidence reveal about implementation fidelity? And what are the plausible implications for graduate employability in Kenya's structurally challenging labour market? The 8-4-4 system's principal structural failure modes compounded these consequences: an entrenched over-reliance on high-stakes summative examinations (KCPE and KCSE) that incentivised rote recall over competency development; systematic marginalisation of vocational and technical pathways in favour of academic credentialism; and an almost complete absence of formative assessment capable of diagnosing and responding to learning gaps as they emerged (Akala, 2021; Ponge, 2013).

## 2. Theoretical Framework

The article integrates three theoretical strands into a unified analytical framework. The first, constructive alignment (CA), provides the design-level standard for evaluating CBC quality. Biggs' (1996) CA theory holds that intended learning outcomes (ILOs), teaching and learning activities (TLAs), and assessment tasks (ATs) must be coherently aligned so learners cannot engage with the curriculum without developing the intended competencies (Biggs, Tang, & Kennedy, 2022). Complementing CA, Wiggins and McTighe's (2005) backward design insists curriculum planners begin with desired results; Schmidt and Houang's (2012) curricular coherence adds the requirement of logical, hierarchical sequencing. The intellectual genealogy of CBC extends through Tyler's (1949) objectives-based rationale, Bloom's (1968) mastery learning, Spady's (1994) outcomes-based education, and Mulder's (2017) synthesis of situated professionalism as the most contextually advanced CBE paradigm.

The second strand, implementation fidelity theory, addresses the enactment level. Carroll et al.'s (2007) framework identifies adherence, quality of delivery, facilitation strategies, and participant responsiveness as core fidelity dimensions, moderated by intervention complexity. Fixsen et al.'s (2005) stages framework – spanning exploration, installation, initial implementation, full implementation, and sustainability, typically requiring two to four years – is especially salient given that Kenya's CBC is still in early implementation. Century et al.'s (2010) distinction between structural fidelity and instructional fidelity provides further analytical granularity.

The third strand, graduate capital theory, operationalises the outcomes level. Tomlinson's (2017) multi-dimensional model distinguishes human, social, cultural, identity, and psychological capital as the composite dimensions of graduate employability. Yorke's (2006) USEM model and Bridgstock's (2009) foregrounding of career management skills complement Tomlinson's framework, while Hillage and Pollard's (1998) four-component employability model – encompassing assets, deployment, presentation, and contextual labour market factors – is particularly salient in Kenya's context, where structural labour market constraints operate independently of individual graduate competence. Of critical analytical importance is the distinction between graduate unemployability – the condition of lacking attributes that make a person attractive to employers – and structural unemployment, arising from insufficient labour demand and macroeconomic constraints (Harvey, 2005; Ponge, 2013). Curriculum reform can address unemployability but cannot resolve structural unemployment. Conflating these phenomena, as CBC policy discourse frequently does, produces systematically overstated claims about what curriculum redesign can deliver.

This theoretical framework operates across three analytical levels. At the design level, Biggs' (1996) constructive alignment theory provides the evaluative standard, requiring that intended learning outcomes,

teaching and learning activities, and assessment tasks all point at the same competency targets. At the enactment level, Carroll et al.’s (2007) implementation fidelity theory shifts attention from what a curriculum promises on paper to what actually happens in classrooms. At the outcomes level, Tomlinson’s (2017) graduate capital model and Hillage and Pollard’s (1998) contextual employability framework together operationalise what “employability” actually means: not a single trait but a composite of human, social, identity, and psychological capital. The framework’s critical analytical contribution is the distinction it draws between these three levels: a reform can be well-designed yet poorly enacted, and even perfectly enacted yet defeated by structural unemployment.

### 3. Research Design and Methodology

This article adopts a systematic literature review design within the qualitative tradition of interpretive policy analysis (Bowen, 2009; Torraco, 2016). Systematic review was selected because no competency outcome or labour market data yet exists for CBC graduates, whose entry into Kenya’s labour market will not occur before 2031. The review synthesises evidence across five thematic domains: CBE theoretical foundations; Kenya’s CBC policy architecture and rollout; graduate employability frameworks and Kenya’s labour market; comparative African and Global South CBC implementation; and critical perspectives on CBE’s epistemological and equity dimensions. The SALSA framework (Grant & Booth, 2009) guided the search, appraisal, synthesis, and analysis process.

Literature searches spanned peer-reviewed journals, Kenyan government policy documents, grey literature, and employer survey data. Search terms included ‘competency-based curriculum Kenya’, ‘CBC implementation fidelity’, ‘graduate employability Africa’, and ‘curriculum reform sub-Saharan Africa’, refined using citation tracking from anchor texts including Akala (2021), Wawire et al. (2025), Carroll et al. (2007), and Ponge (2013). A large language model (Claude, Anthropic, Sonnet 4.6) was used to accelerate source identification and cross-domain thematic mapping, in accordance with emerging scholarly standards (Hosseini et al., 2023; ICMJE, 2024). All citations were independently verified; the AI tool generated no empirical data and made no final analytical decisions.

### 4. Kenya’s CBC Design: Industry Alignment and Constructive Architecture

Table 1. Comparative Analysis of 8-4-4 and CBC System Architectures

Dimension	8-4-4 System (1985 – 2022)	CBC Framework (2017 – present)
<b>Structure</b>	8 years primary, 4 secondary, 4 university	2-6-3-3-3 progressive cycle
<b>Organising principle</b>	Content and knowledge transmission	Competency attainment and mastery
<b>Assessment</b>	High-stakes summative examinations (KCPE/KCSE)	Continuous competency-based assessment (CBA)
<b>Senior school</b>	Uniform academic pathway	Differentiated: STEM, Social Sciences, Arts & Sports
<b>Industry engagement</b>	Minimal; <i>ad hoc</i> university-industry links	Formalised via KICD/KEPSA/KAM advisory structures
<b>Employability focus</b>	Academic credentials; life skills absent	Seven core competencies incl. digital literacy, self-efficacy
<b>Community engagement</b>	Extracurricular; optional	Mandatory Community Service Learning (CSL)

Sources: KICD (2017); Republic of Kenya (2019, 2023); Akala (2021); Ponge (2013).

Evaluated against constructive alignment principles, Kenya’s BECF demonstrates commendable design intentionality. The seven core competencies – communication and collaboration, critical thinking and problem-solving, imagination and creativity, citizenship, self-efficacy, digital literacy, and learning to learn – constitute a direct curricular response to pre-reform employability deficits. Ponge (2013) identified the absence of life skills training, interpersonal skills, and critical thinking as the most consistent employer complaints about 8-4-4 graduates. Ochieng et al.’s (2025) survey of 70,000 employers corroborates this with current evidence: 82.8% rate communication, teamwork, and problem-solving as essential, and 42.8% attribute skills mismatch primarily to soft skills deficits. Critically, the shift from KCPE/KCSE high-stakes summative examinations to Continuous

Competency-Based Assessment (CBA) is itself a constructive alignment mechanism: by aligning assessment tasks with competency targets rather than content recall, CBA structurally closes the backwash loop that drove 8-4-4 learning toward memorisation rather than mastery (KICD, 2017; Biggs, 1996).

The pathway-differentiated Senior School constitutes the most explicit industry-alignment mechanism. Following the Kenya Junior School Education Assessment (KJSEA) at Grade 9, learners select from Arts and Sports Sciences, Social Sciences, or STEM pathways – with the Technical Studies stream providing direct articulation to the post-secondary CBET system (TVETA, 2023). Formal industry engagement includes KICD curriculum development involving KEPSA, KAM, and FKE (Kariuki, 2024; Republic of Kenya, 2018), and the Dual Training Policy approved in January 2025. In practice, however, a persistent gap exists between employer engagement in design and actual utilisation of qualifications. Allais et al. (2025) document this disconnection across six low- and middle-income countries; UNESCO-IIEP and IFEF (2020) confirm that African occupational standards are frequently unused in hiring decisions. Gehrig et al.'s (2026) study of industry-driven training and curriculum development in the fusion science sector found that sustained practitioner-industry collaboration in curriculum design produced measurable alignment between programme outcomes and workplace competency requirements – yet also confirmed that such alignment depends on structural mechanisms of ongoing employer feedback rather than one-off consultation, a condition absent from most African CBC governance architectures.

Unless CBC's industry engagement is institutionalised into binding, data-driven governance, skills mismatch risks reproducing itself under the new framework (Ponge, 2013). The articulation architecture underpinning these pathways is provided by the Kenya National Qualifications Framework (KNQF), established under the Kenya National Qualifications Framework Act (2014), strengthening the system's capacity for vertical and horizontal mobility (Republic of Kenya, 2019).

Mandatory Community Service Learning (CSL) across all levels offers direct graduate capital development potential. Tomlinson's (2017) model indicates CSL develops social, identity, and psychological capital through professional networks, civic engagement, and real-world problem-solving. Jackson's (2015) empirical study of work-integrated learning found that the workplace supervisor is the single most important person in skill development during placement, and identifies poor programme design – inadequate preparation, insufficient mentoring, and lack of structured reflection – rather than student deficits, as the primary barrier to skill acquisition. Without formalised supervisor training, structured placement curricula, and institutional coordination between schools and community organisations, CSL risks becoming a compliance activity rather than a genuine graduate capital development mechanism.

## 5. Implementation Fidelity: Evidence from the Field

Table 2. Implementation Fidelity Scorecard for Kenya's CBC (2017 – 2025)

Fidelity Dimension	Key Evidence	Status	Severity
<b>Quality of delivery (teacher preparedness)</b>	Only 3% of teachers felt adequately prepared at rollout (Momanyi & Rop, 2020); >80% of school heads reported unreadiness (Mohamed et al., 2022); systemic pedagogical unpreparedness confirmed (Mwang'ombe, 2021)	Critical deficit	High
<b>Structural fidelity (resources)</b>	<40% of JSS schools have adequate labs/ICT (Cheruiyot, 2024); internet penetration: 9% (West Pokot) to 64.7% (Nairobi) (Okello, 2024)	Significant gap	High
<b>Assessment validity</b>	CBA construct validity: 22%; reliability: 41% (Kiragu, 2025); 50% of teachers cannot design rubrics (Macheso et al., 2024)	Inadequate	High
<b>Participant responsiveness</b>	Significant parental anxiety; thousands of public submissions to Presidential Working Party (Republic of Kenya, 2023)	Contested	Medium
<b>Implementation stage</b>	System still in initial implementation phase; outcomes data not yet meaningful (Fixsen et al., 2005)	Early stage	Medium

Sources: Carroll et al. (2007); Momanyi & Rop (2020); Mohamed et al. (2022); Mwang'ombe (2021); Cheruiyot (2024); Okello (2024); Kiragu (2025); Macheso et al. (2024); Republic of Kenya (2023); Fixsen et al. (2005).

Quality of delivery is the most proximate fidelity determinant (Carroll et al., 2007). The convergent evidence of Momanyi and Rop (2020), Mohamed et al. (2022), and Mwang'ombe (2021) confirms systemic pedagogical unpreparedness, identifying inadequate teacher training as the most persistent constraint on curriculum enactment. These findings align with Fixsen et al.'s (2005) insight that whole-system behaviour change requires sustained professional development over two to four years – precisely what cascade training fails to deliver. Critically, the same structural incapacity to translate curriculum policy into classroom practice afflicted 8-4-4 throughout its tenure (Ponge, 2013; Akala, 2021), confirming that fidelity deficits are institutionally rather than reform-specifically rooted.

Christie's (1998) psychoanalytic organisational analysis of dysfunctional South African township schools found that apathy, blame-shifting, and the erosion of agency among teachers and principals were not individual failings but expressions of broader organisational collapse – the breakdown of authority relations, rituals, and the time-space boundaries that make structured learning possible. That these dynamics appear in the CBC implementation evidence suggests fidelity deficits may involve not only resource and training gaps, but deeply embedded institutional behaviours that top-down policy change cannot easily disrupt.

Structural fidelity requires adequate physical and material infrastructure. Cheruiyot (2024) found fewer than 40% of junior secondary schools equipped with adequate science laboratories and ICT tools at first enrolment in 2023. The digital divide is stark: internet penetration ranges from 64.7% in Nairobi to 9% in West Pokot (Okello, 2024), rendering the digital literacy competency inequitably distributed before learners enter Senior School. The Global Partnership for Education (2022) data shows primary Net Enrolment Rates varying from 42% in Garissa to 96.8% in Nyeri, mapping resource disparities onto pre-existing patterns of regional inequality.

Assessment is the linchpin of any competency-based curriculum. Kiragu's (2025) evaluation found only moderate reliability (41%) and validity (57%), with weak construct validation at 22%. Fifty percent of teachers report challenges in designing assessment rubrics (Macheso et al., 2024). If assessments cannot reliably differentiate competency attainment, employers cannot use CBC qualifications as credible workplace readiness signals, directly undermining the reform's economic rationale (Allais, 2007). Biggs' (1996) SOLO taxonomy further suggests that most CBA tasks currently elicit unistructural or multistructural responses, whereas the seven core competencies demand relational and extended abstract performance. The CBA validity crisis, with only 22% construct validation, suggests Kenya's assessments are not yet aligned to the higher-order competencies the BECF nominates, meaning the system's learning backwash may be actively undermining the very competencies the reform was designed to develop.

## 6. Comparative Perspectives: CBC in Africa and the Global South

Kenya's implementation challenges are the latest iteration of a pan-African pattern of reform ambition outpacing implementation capacity. Wawire et al.'s (2025) scoping review across Ghana, Kenya, Rwanda, South Africa, Tanzania, Uganda, and Zambia finds teacher-centred pedagogies remain prevalent despite widespread policy commitment to learner-centred approaches, with structurally consistent barriers of limited funding, large class sizes, and insufficient ICT infrastructure. UNESCO-IBE's (2023) analysis characterises African curricula as still bearing the organising logic of their colonial predecessors despite decades of reform rhetoric. Gauthier's (2013) UNICEF/CONFEMEN review across five African countries found no measurable improvement in learning outcomes from competency-based reforms, attributing failure to poorly designed pilots, conceptual ambiguity, and inadequate budgetary allocation.

Rwanda's 2015 competence-based curriculum (Rwanda Education Board, 2015), developed in alignment with the East African Community's regional harmonisation agenda, offers the most instructive comparison. Ndiokubwayo et al.'s (2020) analysis found incremental improvement in learner-centred teaching across five years, while Mutabazi and Saine (2025) identify a persistent implementation gap between policy intention and classroom reality – with successful strategies requiring school-based in-service training and communities of practice that many Kenyan schools lack the infrastructure to sustain. Within Kenya itself, Magoma (2025) documents that teachers who trained under 8-4-4 face subject overload and insufficient pre-service preparation for learner-centred methods, echoing the Rwanda implementation gap.

South Africa's Curriculum 2005, based on outcomes-based education, constitutes the most documented cautionary tale. Jansen (1998) predicted its failure on grounds of political symbolism prioritised over pedagogical soundness; C2005 was revised in 2000, replaced in 2002, and abandoned in 2011 (Hoadley, 2018). Du Plooy and Zilindile (2023) distil the lesson: the reforms emphasised outcomes without considering the input

side. Allais' (2007) foundational analysis of South Africa's NQF collapse is particularly instructive: outcomes-based qualifications frameworks, in attempting to bypass educational institutions, actively undermine the possibility of building them. The parallel for CBC is direct: if implementation strategy continues to prioritise framework construction and outcome specification over investment in teacher capacity and school infrastructure, the reform risks reproducing the South African pattern of a well-populated policy architecture with negligible classroom reality. Recent scholarship reinforces this concern: emerging empirical work on competency-based reform trajectories in comparable national contexts continues to document the persistent gap between policy-level competency specification and practitioner-level enactment, with faculty preparation and institutional capacity identified as the primary mediating variables (Gehrig et al., 2026). Globally, Wheelahan's (2010) critique argues that competency-based systems eliminate the theoretical knowledge necessary for occupational mobility, while Allais's (2023) study across 34 African countries finds CBT qualifications miss the informal labour market reality most graduates will enter.

## 7. Graduate Employability Implications

### 7.1 *The Structural Labour Market Context*

Any credible assessment of CBC's employability potential must begin with Kenya's structural labour market realities. World Bank (2025) data places youth unemployment (ages 15–24) at 11.93%; KNBS's (2023) broader measure (ages 15–34) reaches 39%, with a Not in Employment, Education, or Training (NEET) rate of 20.2%, and the Federation of Kenya Employers (FKE) estimates 67% when underemployment is included. Approximately 800,000 new job seekers enter the market annually while only 10% of the workforce is in formal employment (KNBS, 2023). Ochieng et al. (2025) confirm that 62.1% of employers perceive a skills-market disconnect; Ondieki et al. (2019) found 42.8% still identifying soft skills deficits as the primary mismatch driver. The FKE's (2023) Skills Needs Survey found skills gaps inhibiting business expansion and causing revenue losses. Continuity of these findings across more than a decade signals that mismatch is structurally rooted in the education-employment relationship, beyond curriculum redesign alone.

### 7.2 *The Graduate Unemployability – Structural Unemployment Distinction*

The conceptual distinction between graduate unemployability and structural unemployment (Harvey, 2005; Ponge, 2013) is the most analytically productive corrective to CBC's overstated employability narrative. Hillage and Pollard's (1998) contextual employability factor – labour market conditions external to graduate competence – directly parallels this distinction: curriculum reform can improve the asset and deployment dimensions of employability but cannot alter the contextual constraints of Kenya's economy. KIPPRA (2009) identified insufficient labour demand, slow economic growth, and high labour costs as primary unemployment drivers – all beyond curriculum's reach. Harvey's (2005) probabilistic definition of employability is directly relevant here: employability is a set of achievements that makes graduates more likely to gain employment, not certain to do so, because extraneous socioeconomic variables always intervene between individual competence and employment outcomes. Harvey further identifies four activity areas through which higher education can enhance employability – embedded attribute development, enhanced central support through career services, innovative work experience provision, and enabled reflection and recording of achievement – none of which can substitute for sufficient labour demand in the broader economy. Kenya's CBC addresses the first of these through its competency architecture and CSL strand, but the remaining three require deliberate institutional infrastructure that sits outside the curriculum itself and which current implementation planning has not yet systematically addressed. When policy documents promise CBC will produce graduates who “employ others rather than seeking employment” (KICD, 2017), the claim exceeds what curriculum reform can structurally deliver without a surrounding ecosystem of financial support, mentorship, and enterprise infrastructure.

### 7.3 *The Employability Measurement Paradox and Gender-Equity Risks*

The first CBC cohort will not enter Kenya's labour market until approximately 2031–2032, creating an “employability measurement paradox”: a reform whose entire justification rests on outcome variables that cannot be empirically assessed within any policy-relevant timeframe. Comparative evidence provides measured grounds for optimism: Muchira et al. (2023) found that well-resourced, high-fidelity CBE in the United States and South Korea improved problem-solving, lifelong learning orientation, and self-efficacy. The World Bank's Kenya Youth Employment and Opportunities Project (2023) found 77% of youth receiving training and internship support found employment or self-employment, suggesting post-curriculum support infrastructure will be as critical as curriculum-developed competencies.

The pathway architecture introduces significant equity risks. Grade 9 pathway selection will channel learners into trajectories with markedly different labour market implications; in contexts of gendered subject preferences and teacher streaming biases, differentiation risks reproducing occupational segregation. Only 11% of STEM enrolment at tertiary level is female, and the NEET rate for young women (26.1%) is nearly double that for young men (14.3%) (KNBS, 2023; UN Women Africa, 2024). Hillage and Pollard's (1998) contextual employability factor applies directly: structural gender barriers will constrain female graduates' outcomes independent of their competency development. The digital divide further compounds inequity – women access the internet at lower rates (32.2%) than men (37.8%) (Okello, 2024) – rendering the digital literacy competency inequitably distributed before Senior School begins. Learners with disabilities constitute a further equity risk group: CBC's pathway differentiation architecture may compound existing barriers to STEM and technical vocational streams, given chronic underfunding of inclusive education infrastructure across Kenyan schools (KNBS, 2023).

## 8. Critical Synthesis, Governance Framework, and Conclusion

The three-level analytical framework reveals a systematic alignment gap. At the design level, the CBC demonstrates commendable constructive alignment: the seven core competencies are theoretically coherent, the pathway architecture embodies backward design, and the BECF exhibits curricular coherence. At the enactment level, fidelity deficits are severe across all Carroll et al. (2007) dimensions, with the system still in Fixsen et al.'s (2005) initial implementation stage. At the outcomes level, the measurement paradox and CBA validity crisis (22% construct validation) preclude any empirical claim about graduate capital development. This pattern is institutionally rooted: the structural incapacity to translate curriculum policy into classroom practice afflicted 8-4-4 throughout its tenure (Ponge, 2013; Akala, 2021). Christie's (1998) intervention principles are instructive here: effective reform of dysfunctional schools requires not merely new policy frameworks but the deliberate rebuilding of organisational containment – restoring consistent management structures, legitimate authority relations, and predictable routines of time and space – before the substantive work of teaching and learning can be recovered.

The industry engagement logic underpinning CBC's employability narrative is more complex than policy discourse acknowledges. Allais et al.'s (2025) cross-country research and UNESCO-IIEP and IFEF's (2020) synthesis demonstrate that formal employer engagement in curriculum design does not automatically translate into graduate employability or qualification utilisation. A more productive conceptualisation would embrace Mulder's (2017) situated professionalism – competence developed through authentic participation in professional communities including dual training and mentored apprenticeships. Bridgstock's (2009) critique of graduate employability frameworks is apposite here: universities and schools have consistently focused on narrow generic skill lists while overlooking the career management skills that graduates actually need to proactively navigate labour markets. Kenya's CBC provides the competency architecture for this, but without institutionalised career guidance infrastructure connecting schools to labour market information, the gap between curriculum intention and graduate capability in navigating Kenya's fragmented job market is likely to persist.

Kenya's CBC reform embodies an ambitious, theoretically grounded attempt to align a national education system with its economy's competency demands. Its constructively aligned design architecture represents genuine pedagogical progress over 8-4-4 and a substantive response to the structural graduate unemployment documented long before the reform was designed (Ponge, 2013; KIPPRA, 2009). The reform's fundamental challenge is not design but enactment: fidelity deficits across teacher preparedness, resource infrastructure, assessment validity, and stakeholder responsiveness mean the curriculum experienced by most Kenyan learners in 2024–2026 bears insufficient resemblance to the 2017 design.

Table 3. Six Priority Interventions for CBC Governance Reform

No.	Intervention	Theoretical Basis
1.	Sustained practice-embedded teacher development replacing cascade training; KeSTEM resourcing at scale, especially in arid/semi-arid regions	Carroll et al. (2007) quality of delivery; Fixsen et al. (2005) full implementation stage
2.	Assessment validity reform: psychometric instrument development, rubric standardisation, moderation systems, and item banking through KNEC	Biggs (1996) constructive alignment; Kiragu (2025) 22% construct validity finding
3.	Formalised sector skills committees with binding curriculum input roles at pathway level; institutionalised career guidance infrastructure connecting schools to labour market information systems and employer networks	Mulder (2017) situated professionalism; Bridgstock (2009) career management skills; Allais et al. (2025) engagement-utilisation gap
4.	Comprehensive graduate and labour market information system integrating KNBS data, employer surveys, and graduate tracer studies	Ponge (2013) labour market information deficit; Ochieng et al. (2025)
5.	Equity-centred pathway governance: gender-responsive pedagogy, affirmative Grade 9 transition access, infrastructure investment in underserved counties	UN Women Africa (2024); Global Partnership for Education (2022); Hillage & Pollard (1998) contextual employability factors
6.	Immediate longitudinal evaluation infrastructure: cohort tracking from Senior School entry through labour market outcomes by 2031	Ponge (2013) data deficit; Tomlinson (2017) graduate capital measurement

Sources: Carroll et al. (2007); Fixsen et al. (2005); Biggs (1996); Mulder (2017); Allais et al. (2025); Tomlinson (2017); Hillage & Pollard (1998); KEPSA (2023); Ponge (2013); Republic of Kenya (2023).

The comparative evidence from Rwanda, South Africa, Ghana, Tanzania, and the Global North reveals this as structural rather than exceptional: curriculum reform in under-resourced contexts consistently encounters implementation gaps that erode the relationship between design ambition and classroom reality. For international comparative education scholarship, Kenya’s CBC illustrates what Amadio et al. (2015) call the continuing use of Sub-Saharan Africa as an “experimental laboratory for reforms originating at the global level.” Unresolved questions about epistemic ownership and contextual appropriateness persist (Deng, 2021, 2022; Wheelahan, 2010). The path forward requires critical adaptation of competency-based approaches to the structural, epistemological, and institutional specificities of the Kenyan and African context, grounded in locally produced evidence and locally governed accountability systems. The six priorities advanced in this article are not new discoveries; they are the continuation of a reform agenda Kenyan researchers identified over a decade ago (Ponge, 2013) that has yet to be systematically implemented. That gap must not be reproduced under CBC.

Future research should pursue three priority directions. First, longitudinal cohort studies tracking CBC learners from Senior School entry through tertiary transitions and into the labour market are urgently needed; establishing baseline competency measures and tracer mechanisms now – before the first graduates emerge around 2031 – will be essential for enabling any retrospective evaluation of CBC’s employability claims against empirical outcome data. Second, comparative implementation fidelity research across Kenya’s counties – contrasting urban, peri-urban, and arid/semi-arid contexts – would enable fine-grained identification of which structural and pedagogical variables most powerfully predict competency attainment, informing more differentiated and context-sensitive implementation support strategies. Third, mixed-methods employer engagement studies examining not only whether industry actors formally participate in CBC curriculum governance but whether and how that participation shapes hiring decisions and qualification recognition would directly address the engagement-utilisation gap that this article identifies as the most consequential unresolved challenge at the design-labour market interface.

## Notes

Note 1. The seven core competencies are formally defined in the Basic Education Curriculum Framework (KICD, 2017): communication and collaboration; critical thinking and problem-solving; imagination and creativity; citizenship; self-efficacy; digital literacy; and learning to learn.

Note 2. The 2-6-3-3-3 structure comprises: 2 years Early Childhood Development and Education; 6 years Lower Primary and Upper Primary; 3 years Junior Secondary School; 3 years Senior Secondary School; and 3 years University/TVET/Professional development.

Note 3. AI disclosure: A large language model (Claude, Anthropic, Sonnet 4.6) was used for source identification and cross-domain thematic mapping only. All citations have been independently verified by the authors. The AI tool generated no empirical data and made no final analytical decisions, in accordance with ICMJE (2024) guidelines.

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