

Bridging the Gap: Addressing the Mismatch between University Specialization and Subject Demands in Junior and Senior Schools in Kenya

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DOI: <https://dx.doi.org/10.47772/IJRISS.2026.10100023>

Received: 27 December 2025; Accepted: 01 January 2026; Published: 19 January 2026

ABSTRACT

This paper explored the persistent challenge faced by university interns and graduates in Kenya due to a mismatch between their areas of specialization and the subject requirements in junior and senior schools. The findings are drawn from review of empirical studies, policy documents, reports and sessional papers on the implementation of Competency Based Curriculum. A total of 21 papers comprising 14 empirical studies retrieved from scholarly journals on the Kenyan curriculum and on CBC in Kenya and East African countries published from 2019-2025 were reviewed. One Sessional Paper, three (3) Policy papers, one training manual and two reports on competency based education were sampled and reviewed guided by the objectives of the study which include: Examine the gap between traditional Kenyan B.Ed. programs and the interdisciplinary, practical demands; To evaluate graduate teachers' preparedness in facilitating CBC competencies; To examine the role of career guidance in aligning teacher trainees' specialization with CBC subject demands. The paper highlights that there is systemic misalignments in teacher training curricula contributing to mismatch between the specializations of university graduates and the actual subject demands in Junior Schools (JS) and Senior Schools (SS); There is a disconnect between the historical university training pathways and the evolving demands of the Competency-Based Curriculum (CBC) which threatens the quality of education, demoralizes teachers, and undermines the goals of the national curriculum. The paper concludes by proposing a multi-faceted strategy to bridge the gap, including targeted professional development to align teacher preparation with classroom realities in junior and senior schools, university curriculum reforms, enhanced teacher management, and strategic long-term planning by all stakeholders.

Key words: University specialization, subject demands, junior and senior schools, curriculum misalignment, employability mismatch, guidance and counseling

INTRODUCTION

Kenya's education sector is undergoing a significant transformation with the implementation of the Competency-Based Education (CBE) whose curriculum is competence based. However, university graduates and interns entering the teaching profession increasingly face challenges due to a misalignment between their academic specialization and the subject areas required in junior and senior schools. It is clear that the graduates trained to teach in secondary schools in Kenya hold a Bachelor of Education or Post Graduate Diploma Degree (PGDE) qualification which equips them with two teaching subjects. Traditionally, two models- concurrent and consecutive models- have been adapted in preparing secondary school teachers. The most common one has been the concurrent model, where trainee teachers study both pedagogy and the subject area simultaneously and graduate with a Bachelor of Education. The consecutive model which is less common has trainees studying the subject area first and graduating with Bachelor of Science or Arts degree. Later they go back to the University for a Postgraduate Diploma in education which qualifies them now as teachers. Nonetheless, there is no homogeneous content in the teacher education programs offered in various universities in Kenya (RoK, 2005).

In the Competency Based Education, the requirement is that in grades 7-9 teachers should competently teach multiple integrated subjects (e.g., Integrated Science, Pre-Technical Education, Life Skills and Social Studies) among other curriculum areas (KICD, 2019). However the reality is that current graduates lack the necessary multi-subject competence. Equally the Competency Based Education has introduced new subjects such as Community Service Learning, Health Education, Pre-technical and Pre-Career education, Performing and Visual Arts which have not been on offer in teacher training curriculum (KICD, 2017: 19). The Competency Based Curriculum also differs from the previous curriculum. There is a shift from the subject-based, knowledge-centered, teaching-focused approaches to modern subject designs such as student-based, competence-centered approaches (KICD, 2019). These changes demand a modification in teaching culture including teaching methodologies and learning styles and the philosophy that accompany such a curriculum. Moreover there is a change in the teacher and learner's roles as well as the culture of teaching. (Huba & Freed, 2000; Jones, 2002)

The paradigm shift of pedagogy calls for new ways of training teachers to prepare them for their changed roles. Besides, given the fact that CBE is a complex and multilayered phenomenon, teachers, educationists and society at large need to be aware and knowledgeable of its principles so that they can understand and appreciate it if it is to be effectively implemented (Mulenga & Kabombwe, 2019). However studies indicate that this hasn't been achieved 100% as Kenya transitions into the CBE. This mismatch not only affects teacher morale and effectiveness but also undermines the quality of education delivered to learners.

Additionally, Sessional paper no. X of 2024 National Education Policy Transforming Education, Training and Research for Sustainable Development in Kenya outlines what the Competency Based Education and Training (CBET) aims at. CBET aims at imparting practical skills and workplace readiness in university education and aligns education and training with the work force and the industry needs. It however notes that there is no standardized framework for university competency Based Education to guide the implementation of CBE in university. Moreover, there has been a challenge of commitment by the youth to community service and lack of a sense of patriotism. It also concludes that most university programmes are not aligned to CBE. To that extent the government envisages the development of the University Competency Based Curriculum and assessment Framework, and a review of university programmes to align with CBE to address these challenges. (MoE, 2024).

Problem Statement

Despite completing rigorous university training, many graduates are deployed to teach subjects they were not adequately prepared for. For instance, a graduate specialized in history and religious education may be assigned to teach Integrated Science or Agriculture in junior secondary schools. This disconnect leads to professional frustration, reduced instructional quality, and high attrition rates among early-career teachers (Khakina, 2024). Teachers teaching in the Junior Schools (JS) are persistently complaining that they are assigned to teach subjects which they did not study while in training colleges. Because of this, many teachers feel that the quality of education that they are giving the JS learners is compromised. As a result this study bridges this gap by exploring the mismatch between the University graduates in internship and employment and the subjects offered at the JS.

METHODOLOGY

A systematic review of various databases was conducted to search for peer-reviewed scholarly journal articles documenting empirical evidence on implementation of the CBC in Kenya. Policy documents, reports as well as sessional paper on curriculum alignment and on higher education were also reviewed. The specific focus being on mismatch between university specialization and subject demands in Junior and Senior schools in Kenya. A total of 14 scholarly journal articles published from 2019-2025 were sampled on the Kenyan Competency Based Curriculum and on CBC, Sessional Paper No. X Of 2024, two papers on national Education Policy Transforming Education, Training and Research for Sustainable Development in Kenya, and two reports on competency based education making a total of 19 papers reviewed. The data is presented in themes in line with the objectives of the paper.

Objectives

1. Examine the gap between traditional Kenyan B.Ed. programs and the interdisciplinary, practical demands

2. To evaluate graduate teachers' preparedness in facilitating CBC competencies.
3. To examine the role of career guidance in aligning teacher trainees' specialization with CBC subject demands.

Curriculum Misalignment and the interdisciplinary, practical demands

Curriculum misalignment continues to hinder the responsiveness of educational programs to the interdisciplinary and practical demands of contemporary professional landscapes. Teacher education programs have been criticized for a while now owing to the fact that a large chunk of graduate teachers are ill-equipped for implementing CBC in secondary schools where this curriculum is implemented (Nderego, Rupia & Onyango, 2022). A survey on teacher programs show that many Kenyan universities continue to offer traditional Bachelor of Education programs that do not reflect the interdisciplinary and practical demands of the CBC. Yet the CBC emphasizes integrated learning areas such as Pre-Technical Studies and Social Studies, which require teachers to possess cross-disciplinary competencies. Similarly, Muchira, et al. (2023) highlights that Kenyan universities have limited evidence of CBC-aligned training. It emphasizes the need for interdisciplinary teaching approaches and notes that teacher training programs remain largely theoretical and outdated. According to the Kenya Private Sector Alliance (KEPSA), a significant number of graduates lack the practical skills and subject-specific expertise required in schools (Citizen Digital, 2025). This mismatch is exacerbated by outdated university curricula and limited exposure to real classroom environments during training.

Nzoka (2024) critiques the rigidity of traditional BEd. Programs and argues that they fail to equip graduates with the practical and interdisciplinary skills required by CBC. The study calls for urgent curriculum reform in teacher education. Pwani university & partners (2023) had a collaborative initiative involving Pwani university, University of Nairobi, and Strathmore University and found that most universities had not yet revised their teacher training modules to reflect CBC demands. The study emphasizes the need for interdisciplinary training and practical exposure. Owiti (2023) reveals that most Kenyan universities have not yet aligned their B.Ed. Programs with the CBC framework. It notes that the Ministry of Education proposed phasing out traditional B.Ed. Degrees in favor of more flexible pathways, but universities lack clear policy direction.

A review of literature indicates that despite CBE calling for acquisition of competencies for students, teachers were ill prepared to facilitate this among learners. A good example is digital literacy which is one of the competencies to be acquired by learners in the CBE (Competency-Based Education) or CBC. This is defined as the ability to use digital devices to access and study information. It goes beyond just web searches and includes the knowledge and skills to properly use various hardware (computers, smartphones, tablets) and their software. Because technology is constantly and rapidly changing, digital literacy requires continuous learning and adaptation. This challenges traditional teaching methods and leads to transformational learning for both teachers and students. Therefore, both must actively develop and maintain up-to-date digital skills to keep pace with the evolving technological world.

However, an investigation on how effectively this was being acquired indicate that there are numerous challenges complicating the acquisition of this competency. Empirical studies reviewed reveal that besides use of unsuitable teaching methods during lessons there was a shortage of teachers with adequate knowledge in computer literacy. Moreover, insufficient facilities and equipment such as computer laboratories and computers, internet connectivity, printers, backup generators, overhead projectors and photocopiers made it difficult to enable teachers and learners comfortably use technology.(Nzoka, 20204, Ondimu, 2018) Besides a review of literature indicates that there's a major disconnect between how teachers are trained in universities and how they're expected to teach in secondary schools. The problem being that the university training itself hasn't been updated to follow the CBC principles it's supposed to be preparing teachers for. A key reason for this gap is that many university lecturers may not have recent or any practical experience teaching in secondary schools. Because they lack this hands-on expertise, they struggle to effectively train future teachers on the real-world skills they'll need (Hardman et al., 2012a).

The central theme across these studies is the persistent disconnect between Kenya's traditional Bachelor of Education (B.Ed.) Programs and the interdisciplinary, practical demands of the competency-based curriculum

(CBC). Researchers consistently highlight that most universities have yet to revise their teacher training curricula to align with CBC-aligned learning areas such as pre-technical studies and social studies, which demand cross-cutting competencies. This educational gap results in graduates who are theoretically trained but underprepared for the dynamic, skill-oriented realities of modern classrooms. The studies emphasize the urgency for curriculum reform, increased practical exposure, and a clear policy roadmap to guide universities toward CBC integration.

graduate teachers' preparedness in facilitating CBC competencies and subject demand in Junior and Senior School.

The issue of graduate under preparedness for the labor market—particularly in the education sector—has been increasingly highlighted in recent Kenyan scholarship. A consistent theme across studies is the mismatch between university training programs and the practical demands of classrooms, especially under the Competency-Based Curriculum (CBC). According to the Kenya Private Sector Alliance (KEPSA), a significant number of graduates lack the practical skills and subject-specific expertise required in schools (Citizen Digital, 2025). This mismatch is exacerbated by outdated university curricula and limited exposure to real classroom environments during training. Khakina (2024) reveals that many Kenyan graduates struggle when transitioning into the workforce because the training they receive is largely theoretical. In the education sector, this results in new teachers facing assignments in unfamiliar subjects or teaching contexts, which they feel ill-equipped to handle. The study attributes this disconnect to outdated university curricula and insufficient partnerships between training institutions and actual school environments. Similarly, Okoth (2025) underscores the frustration of youth exiting university only to encounter a work environment demanding skills—both subject-specific and pedagogical—that were not part of their academic training. In education, this often manifests in teachers needing to self-train post-deployment, particularly in the digital literacy and interdisciplinary content areas demanded by CBC.

Kalei (2015) takes a broader labor market approach but echoes this concern. The study shows that employers in multiple sectors, including education, frequently complain that university graduates lack both technical skills and the confidence to deliver in their designated roles. It advocates for curriculum reforms emphasizing practical application, communication, and critical thinking to bridge the gap. Finally, Odebero (2019), in assessing the employability of secondary education graduates, confirms a misalignment between training and employer expectations—even in education. While not limited to teacher training, the findings illustrate the systemic nature of Kenya's skills gap: a disjointed pipeline from school to university to work, driven by poorly synchronized curricula and weak stakeholder collaboration.

Together, these studies highlight an urgent need for curriculum alignment, experiential learning, and institutional partnerships that translate university theory into classroom readiness. As Kenya continues to implement CBC, these gaps risk widening unless teacher education reform is prioritized.

Career Guidance in Specialization Choices and Subject Demand in Junior and Senior School

The role of effective career guidance in shaping students' academic and professional trajectories is essential, particularly for pre-service teacher trainees. In Kenya, a growing body of research has identified inadequate career guidance as a major contributor to misguided specialization choices, resulting in poor alignment between teacher training and national education needs. As a result, the Ministry of Education has identified inadequate career guidance as a key contributor to poor specialization choices among teacher trainees (Kenya News Agency, 2023). Many students select teaching subjects based on availability rather than aptitude or market demand, leading to oversupply in some areas and shortages in others. Orente (2011) conducted an in-depth assessment of career guidance and counseling programs in public secondary schools in Nairobi Province and found that many institutions lacked structured programs, trained personnel, and adequate time for meaningful student engagement. The absence of proper occupational information and individualized guidance often led learners to make critical decisions about their academic futures—including teaching subjects—based on assumptions, peer influence, or course availability rather than interest or market relevance. These findings are echoed by Nyong'a (2005), whose study in Vihiga District reported that despite the recognition of the importance of career guidance, most schools treated it as an extracurricular or peripheral activity. Teachers tasked with offering guidance were often untrained in the field, leading to generalized or misinformed advice. The result was a wave of students

entering teacher training colleges with little understanding of the specialization choices most aligned with their abilities or national subject demands.

At a policy level, the Ministry of Labor and Social Protection (2024) acknowledged the systemic nature of this challenge through the National Policy Framework for Career Guidance in Kenya. The document highlights that limited institutionalization of career guidance within both secondary and tertiary education systems has contributed to the misalignment between students' chosen training paths and evolving labor market needs—including in the education sector under reforms like the Competency-Based Curriculum (CBC). Furthermore, the Kenya Education Management Institute (KEMI) has emphasized the deficit in capacity and resource allocation for career counseling in schools. Through its training modules for school administrators and education officers, KEMI underscores that many educators lack the formal training and access to tools needed to support informed subject and career choices. Consequently, students often drift into teaching disciplines without clear insight into their future applicability or demand in Kenya's changing school system.

Collectively, these studies reinforce the call for strengthening career guidance structures, especially at the secondary education level, as a foundational strategy to align teacher trainee specialization with national priorities in education. Without targeted, data-informed, and personalized career support, universities may continue to enroll students in saturated or disconnected subject areas, compounding the issue of graduate underemployment and educational inefficiency.

CONCLUSION

Universities mostly use lectures to teach their students (the future teachers). However, junior and senior schools now focus on a competency-based curriculum (CBC), which requires more interactive, student-centered methods like discussions and projects. This means new teachers graduate from university having majorly learnt passively through lectures but are immediately expected to teach in a completely different way embracing learner-centred methodologies where they actively engage their learners in their own classrooms. This is unattainable due to the

Literature revealed indicated that teaching unfamiliar subjects led to reduced confidence, increased preparation time, and reliance on textbooks rather than pedagogical strategies. This aligns with findings by Khakina (2024), who noted that mismatched deployment contributes to poor learner outcomes. Universities were found to have limited engagement with the Teachers Service Commission (TSC) and curriculum developers, resulting in training programs that are misaligned with classroom realities. Additionally, internship placements often fail to match interns with mentors in their subject areas.

The mismatch between university specialization and school subject demands is a systemic issue that requires coordinated reforms across teacher education, curriculum development, and deployment policies. Addressing this challenge is essential for improving teacher effectiveness and ensuring the success of Kenya's education reforms.

RECOMMENDATIONS

1. There is need for universities to reform their curricula in terms of the content and pedagogy to align with CBC subject clusters and integrate interdisciplinary training so that they will prepare competent teachers to implement CBC in junior and senior schools
2. There is a critical need for universities to utilize teaching strategies that conform to the principles of CBC.
3. Teachers need to be competent in the requirements of competence-based teaching and learning and this can be achieved in pre-service training and through in-service training for interns and practicing teachers to bridge subject knowledge gaps.
4. Strengthen University-School Linkages: Establish formal partnerships between universities, TSC, and schools to ensure relevant internship placements and feedback loops.

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