

Teaching and Learning in Fragile Contexts (TLFC)

Research Paper

Teacher agency and curriculum reforms In crisis and fragile contexts: Policy and practice in schools with refugees in Kenya

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EXECUTIVE SUMMARY

Background and Purpose

Teachers play a critical role in translating curriculum reforms into meaningful learning experiences, particularly in crisis and fragile contexts where schools face multiple social, economic, and institutional challenges. In Kenya, the implementation of the Competency-Based Curriculum (CBC) has increased the need for teachers to exercise professional judgement, adaptability, and innovation. These demands are especially pronounced in schools with refugee learners, where teachers work with learners from diverse linguistic, cultural, and educational backgrounds.

This study examined teacher agency and CBC implementation in schools at the Kakuma Refugee Camp and in urban schools in Nairobi that integrate refugee learners. It sought to identify the factors influencing teacher agency, compare teachers' experiences across contexts, examine the relationship between teacher agency and curriculum reform, and explore how teachers' beliefs shape instructional decisions and literacy outcomes. A mixed-methods approach was employed, combining quantitative survey data with qualitative interviews, focus group discussions, and learner perspectives.

Key Findings

Teacher Agency is Strong across Crisis Contexts

Teachers reported consistently high levels of agency among themselves. They reported strong autonomy in making instructional decisions, adapting lessons to learner needs, and responding creatively to contextual challenges. Most teachers indicated that they regularly modify teaching approaches to accommodate diverse learners and support curriculum implementation.

Qualitative findings reinforced these results, showing that teachers view themselves as active professionals who continuously adjust their practice to address overcrowded classrooms, language barriers, interrupted learning histories, and limited resources.

Teacher Beliefs are the Strongest Driver of Agency

Teacher beliefs emerged as the most significant predictor of teacher agency. Teachers who held strong beliefs about the purpose of education, learner success, and the transformative role of teaching were more likely to demonstrate initiative, adaptability, and commitment to curriculum reform. The findings suggest that teacher agency is driven not only by professional skills but also by teachers' values, sense of purpose, and commitment to improving learners' lives.

Personal Factors Strengthen Professional Commitment

Teachers reported very high levels of motivation, openness to innovation, professional confidence, and sense of purpose. Many viewed teaching as a means of promoting inclusion, resilience, and hope among refugee and host-community learners.

Qualitative evidence showed that teachers frequently act as mentors, counsellors, mediators, and advocates in addition to their instructional responsibilities.

Structural Factors Provide Support but System Constraints Persist

School-level leadership and decision-making structures were generally perceived positively. Teachers reported strong support from school leaders and opportunities to participate in school governance.

However, many teachers felt constrained by broader education system requirements, limited flexibility in policy implementation, and inadequate funding. These system-level challenges reduced their ability to fully respond to the realities of refugee-serving classrooms.

Cultural Diversity Shapes Classroom Practice

Teachers strongly valued culturally relevant teaching and inclusive learning environments. They routinely adapted teaching materials to reflect learners' backgrounds and experiences.

At the same time, linguistic diversity, varying cultural expectations, and community influences created additional demands on teachers. Effective curriculum implementation therefore depended on teachers' ability to balance cultural responsiveness with curriculum requirements.

Material Challenges Remain Significant

Material factors emerged as one of the greatest challenges facing teachers. Resource shortages included inadequate textbooks, insufficient teaching materials, poor infrastructure, limited electricity, and shortages of classroom furniture.

Despite these constraints, teachers demonstrated remarkable creativity and resourcefulness. Many improvised teaching aids, adapted locally available materials, and developed innovative strategies to sustain learning.

Teacher Agency Varies Across Contexts

Teachers in Kakuma reported significantly higher levels of agency than teachers in Nairobi. While camp-based schools face more severe challenges, these conditions appear to encourage greater adaptability, creativity, and problem-solving.

However, teachers in Kakuma also reported higher levels of professional isolation, highlighting the need for stronger support systems and professional networks.

CBC Reform is Widely Accepted Across Contexts

The study found no significant differences in perceptions of CBC reform between refugee and national teachers, or between teachers with different levels of CBC training. This suggests that CBC has become a shared professional framework across educational settings.

However, successful implementation depends heavily on teachers' ability to adapt curriculum expectations to local realities.

Learners Confirm the Importance of Teacher Agency

Learners consistently described teachers as supportive, encouraging, and responsive. They highlighted teachers' use of group work, individualized support, language assistance, and motivational strategies to improve literacy and learning outcomes.

Learners associated teacher support with increased confidence in reading, classroom participation, and academic achievement.

Key Recommendations

1. **Strengthen teacher agency** by promoting reflective practice, professional autonomy, and classroom innovation.
2. **Invest in teacher beliefs and professional identity** through mentorship, coaching, and professional learning programmes that reinforce the purpose and value of education.
3. **Improve material conditions** in refugee-serving schools through increased provision of textbooks, teaching materials, infrastructure, assistive devices, and digital learning resources.
4. **Strengthen professional support systems** by establishing teacher learning communities, mentoring structures, and peer networks, particularly in refugee camp settings.
5. **Enhance curriculum flexibility** to allow teachers to adapt CBC implementation to multilingual, multicultural, and crisis-affected learning environments.
6. **Promote community engagement** to strengthen culturally responsive teaching and support positive relationships between schools, refugee communities, and host communities.
7. **Support teacher well-being** through psychosocial support, recognition initiatives, and strategies that address professional isolation and workload pressures

Conclusions

The study concludes that teacher agency is a critical factor in the successful implementation of CBC in crisis and fragile contexts. Teachers are not passive implementers of reform but active professionals who interpret, adapt, and contextualize curriculum requirements to meet learners' needs.

Teacher beliefs, professional commitment, and personal resilience are central to sustaining agency, while structural, cultural, and material conditions shape how agency is exercised in practice. Although resource limitations and system constraints remain significant challenges, teachers continue to demonstrate remarkable adaptability and innovation.

The findings underscore the importance of investing in teachers not only through technical training but also through professional support, improved working conditions, strengthened school leadership, and opportunities for collaboration.

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1.0 INTRODUCTION

1.1 Background to the Study

Global forced displacement has reached unprecedented levels, with sub-Saharan Africa bearing a significant portion of the world's displaced populations. Within this regional landscape, Kenya stands as a primary host nation, sheltering over 85, 2388 registered refugees and asylum seekers as of early 2026. The vast majority of this population is concentrated in protracted camp environments, specifically Dadaab in Garissa County, which hosts over 406,000 individuals, and the Kakuma Camp and Kalobeyei Integrated Settlement in Turkana County, hosting over 316,460. Concurrently, a substantial and highly fluid population of over 118,000 urban refugees navigates informal settlements within metropolitan centres like Nairobi. Children and youth aged 4 to 18 years represent more than 51% of this total demographic, transforming the delivery of basic education into both an urgent humanitarian mandate and a complex structural governance challenge for the host country. (Operational Data Portal, 2026)

Historically, refugee education in Kenya operated on a parallel track, heavily dependent on international humanitarian organisations, non-governmental organisations (NGOs), and a precarious system of "incentive teachers"—refugees chosen from within the camps who were provided basic stipends rather than formal professional salaries. However, this fragmented approach has been fundamentally disrupted by major legal and systemic shifts. The enactment of the Kenya Refugee Act of 2021, alongside the progressive rollout of the "Shirika Plan," has formally signalled a transition away from long-term encampment toward integrated, sustainable settlement models. Central to this plan is the socio-economic inclusion of displaced populations into national public service infrastructure, explicitly including the national education system. Under the country's Basic Education Act, every child within Kenyan borders, regardless of legal status, possesses a constitutional right to free and compulsory basic education. (Nyale, 2025; Ministry of Interior and National Administration, 2025).

The study is also situated within broader international commitments to Sustainable Development Goal 4 (SDG 4), which seeks to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Refugee learners remain among the populations most vulnerable to educational exclusion globally. Consequently, examining curriculum implementation within refugee-hosting schools contributes not only to national policy debates but also to global efforts aimed at strengthening educational inclusion, equity, and resilience in contexts affected by displacement and conflict (UNESCO, 2016).

This legal transition toward educational integration directly intersects with the most sweeping macro-level curriculum overhaul in Kenya's post-independence history: the transition from the legacy 8-4-4 system to the new CBC. Initiated in 2017, the implementation of the CBC has advanced systematically, with the pioneer cohort navigating Grade 9 junior secondary milestones as of 2025/2026. The CBC marks a deliberate, profound philosophical shift away from the traditional, examination-heavy rote memorization model. (Wanjohi & Ongwae, 2025).

While the learner-centered philosophy of CBC offers substantial opportunities for promoting critical thinking, creativity, collaboration, and personalized learning, its implementation may present unique challenges for refugee learners. Many displaced students experience interrupted schooling trajectories, language acquisition difficulties, psychosocial distress, and varying levels of prior curriculum exposure. These factors can complicate participation in competency-based learning activities and require teachers to make extensive pedagogical adaptations to ensure meaningful engagement.

Instead, it prioritizes a learner-centered paradigm designed to foster seven core competencies: communication and collaboration, critical thinking and problem-solving, creativity and imagination, citizenship, digital literacy, learning to learn, and self-efficacy. Crucially, the CBC alters the structural nature of educational delivery by decentralising student evaluation; it shifts away from a 100% summative national exam model toward a framework where at least 40% of a student's final grade is derived from ongoing, school-based formative assessments designed and administered directly by classroom teachers.

According to UNHCR and the Government of Kenya, the Dadaab refugee complex hosts hundreds of thousands of refugees, a significant proportion of whom are school-aged children. Educational provision within refugee settings continues to face challenges including overcrowded classrooms, inadequate learning resources, teacher shortages, and limited professional development opportunities. Urban refugee learners similarly encounter barriers related to social integration, language differences, and inconsistent educational support. These conditions create unique challenges for teachers implementing CBC and warrant systematic investigation. (Peterson, 2018; (Gomez, 2024).

While these ambitious curriculum reforms are designed with standard public schools in mind, their implementation in crisis-affected and fragile contexts exposes severe systemic friction. The pedagogical mandates of the CBC assume a baseline of structural and material conditions that simply do not exist in schools serving refugees. The curriculum demands low teacher-to-student ratios to facilitate individualized formative tracking, specialized teaching materials for practical hand-on activities, continuous digital connectivity to record student assessments, and highly trained personnel capable of adapting lessons to diverse learning styles. In contrast, schools in Kakuma and Dadaab routinely face overwhelming

classroom densities, with student-to-teacher ratios frequently exceeding 80:1 or even 100:1. These settings suffer from chronic shortages of textbook distributions, lack basic digital infrastructure, and rely on a heavily under-trained, transient teaching workforce. Furthermore, urban informal settlements present unique challenges, where schools serving refugees grapple with severe financial precarity, overcrowded facilities, and the continuous threat of learner eviction.

Consequently, a profound mismatch emerges between the idealized, top-down mandates of state education policy and the acute, ground-level realities of classroom practice in fragile contexts. On the frontline of this systemic friction are the classroom educators. In these environments, curriculum implementation cannot be a matter of mechanical compliance. Instead, teachers must constantly negotiate, improvise, and alter policy directives to bridge the vast chasm between state expectations and localized constraints. This dynamic brings the concept of *teacher agency* into sharp focus. The success, failure, or transformation of national educational reforms within refugee-hosting communities hinges fundamentally on the capacity and willingness of these frontline educators to act agentically, transforming abstract policy into viable, inclusive classroom practice under conditions of extreme adversity.

1.2 Study Objectives

The overarching purpose of this study is to critically evaluate how teachers operating within crisis-affected and fragile educational contexts in Kenya exercise agency to navigate, adapt, and implement national curriculum reforms. To achieve this, the study is guided by four specific research objectives:

1. To investigate the structural, material, and socio-cultural factors that expand or restrict teacher agency during the implementation of the competency based curriculum in refugee-hosting schools in Kenya.
2. To examine the diverse strategies, improvisations, and pedagogical adaptations deployed by national, qualified refugee, and incentive teachers to reconcile centralised curriculum mandates with the lived realities of crisis-affected classrooms.
3. To compare and contrast the manifestation of teacher agency and curriculum delivery across distinct fragile ecologies, specifically comparing remote, camp-based educational settings (Kakuma) with urban informal settlement contexts (Nairobi).
4. To capture and analyse learner perspectives regarding classroom practices, evaluating how teacher agency directly shapes the pedagogical and psychosocial experiences of displaced youth.

1.3 Research Questions

1. How do teachers in refugee-hosting schools in Kenya exercise agency during the implementation of the Competency-Based Curriculum?
2. What structural, material, and socio-cultural factors facilitate or constrain teacher agency in crisis-affected educational contexts?
3. How do manifestations of teacher agency differ between camp-based and urban refugee education settings?
4. How do learners perceive the influence of teacher agency on their educational experiences and well-being?

1.4 Conceptual and Theoretical Framework

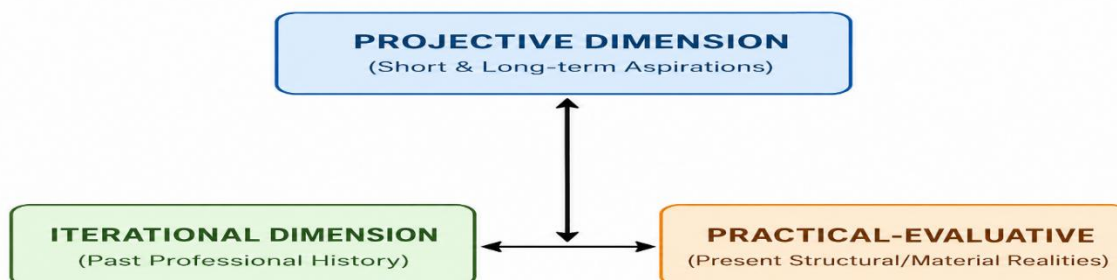
Understanding Teacher Agency

For decades, traditional educational reform models viewed teachers primarily as passive implementers or technical conduits of centralized policy decisions. When reforms failed, deficit narratives frequently blamed a lack of teacher compliance or inadequate training. This study rejects such deterministic views, positioning teacher agency as the vital locus of curriculum transformation. Teacher agency is not an inherent, static personality trait, nor is it merely a capacity that an individual inherently "possesses." Instead, drawing on contemporary sociological and educational literature, this study conceptualises agency as an active, emergent phenomenon that teachers achieve dynamically within specific, concrete professional settings. Agency refers to an educator's active capability to make deliberate choices, take purposeful stances, and constructively shape their professional work and structural environments. In highly volatile and resource-constrained educational spaces, teacher agency becomes the primary mechanism through which rigid institutional mandates are translated into flexible, contextually relevant pedagogical actions. (Connors, 2020; Rose, 2018; Tripathi, 2025; UNHCR, 2022).

Theoretical Framework: The Ecological Approach to Agency

To operationalise this concept, this study utilised the Ecological Approach to Teacher Agency, developed primarily by Priestley et al. (2015). This model posits that agentic action cannot be understood in isolation from the environments in which it occurs. Instead, agency is shaped by the continuous, multidimensional interaction between an individual actor's internal capacities and the external structural, material, and cultural ecologies of their workplace. The ecological framework is explicitly non-linear, viewing the achievement of agency as a configuration of three distinct yet deeply intertwined temporal dimensions: the **iterational** (past), the **practical-evaluative** (present), and the **projective** (future). (Priestley, 2015). The interrelationship is demonstrated in Figure 1.

Figure 1 Key Components of the Framework



Operationalisation of the Ecological Framework

Within this study, the ecological dimensions of teacher agency served as the primary analytical categories guiding both data collection and interpretation. Interview protocols, questionnaires, classroom observation tools, focus group discussion guides, and coding frameworks were designed to capture evidence relating to teachers' past experiences (iterational), present contextual realities (practical-evaluative), and future aspirations (projective). The framework therefore functions not only as a theoretical lens but also as an analytical structure through which empirical findings are interpreted (Popky, 2024).

The ecological framework unpacks the achievement of agency by evaluating how these three dimensions intersect in a teacher's day-to-day professional life.

- **The Iterational Dimension (The Past):** This component encompasses the accumulated life histories, personal values, professional trajectories, and prior educational experiences that teachers bring to their current work. It includes their formal teacher training, embedded pedagogical beliefs, past encounters with educational reforms (such as the legacy 8-4-4 system), and their personal experiences with displacement, stability, or crisis. The iterational dimension provides the foundational schemas, habits, and professional repertoires that inform how an educator understands their role and reacts to new curriculum demands (Chen, 2023).
- **The Practical-Evaluative Dimension (The Present):** This dimension represents the immediate, context-specific environment within which teachers must act. It dictates what courses of action are practically possible, safe, or resource-supported at any given moment. This dimension is further sub-divided into three critical influences:
 - *Structural Factors:* The formal hierarchies, power dynamics, accountability frameworks, assessment reporting schedules, and supervisory networks imposed by the Ministry of Education and humanitarian agencies.

- *Material Conditions:* The physical reality of the school, including student enrollments, classroom spaces, access to textbooks, desks, water, electricity, and digital devices necessary for CBC implementation.
- *Cultural and Social Influences:* The shared values, linguistic variations, community expectations, biases, and interpersonal relationships among teachers, school leaders, refugee communities, and host populations (Chen, 2023 and Leijen, 2019).
- **The Projective Dimension (The Future):** This component focuses on the aspirations, goals, and orientation of the educator toward what is desirable or possible in the future. It operates on two tracks: short-term pedagogical goals (e.g., ensuring a specific group of multilingual learners passes their Grade 6 English assessment) and long-term socio-political aspirations (e.g., empowering refugee children to achieve self-reliance, fostering social cohesion, or securing permanent professional accreditation). The projective dimension directs the choices teachers make as they selectively adapt curriculum mandates in pursuit of these broader goals.

Why this Framework Fits Refugee Contexts

The ecological framework is uniquely suited for analyzing teacher agency within schools hosting refugee learners in Kenya for several compelling reasons. First, traditional psychological models of agency assume a stable, standardized professional baseline where individual motivation is the primary variable. In contrast, crisis and fragile settings are defined by extreme environmental volatility, massive resource disparities, and complex legal constraints. The ecological model explicitly shifts focus away from individual teacher deficits, redirecting analytical attention to how hostile or supportive environments actively expand or restrict a teacher's room to manoeuvre.

Second, the framework accounts for the highly diverse, fragmented professional backgrounds of the teaching workforce in refugee-hosting regions. By utilising the *iterational dimension*, researchers can analyse how a Kenyan national teacher, a certified refugee teacher from another country, and an untrained refugee incentive teacher utilise entirely different historical repertoires to respond to the same CBC mandate.

Finally, the temporal interplay between the *practical-evaluative* and the *projective* dimensions is vital for understanding the existential stakes of education in emergencies. In Kakuma, a teacher's present reality (overcrowded classrooms, lack of materials) constantly clashes with their future projections (fostering learner survival, repatriation preparation, or integration). By treating agency as an emergent ecological phenomenon, this framework enables a deep, nuanced understanding of how frontline educators navigate these profound systemic tensions to keep inclusive learning alive (Aden, 2022; Kunyu, 2025; UNESCO IIEP, 2023).

1.5 Significance of the Study

This study contributes to educational policy, refugee studies, and curriculum implementation scholarship in several ways. First, it expands theoretical understanding of teacher agency within crisis-affected educational environments. Second, it provides evidence-based recommendations for strengthening CBC implementation in refugee-hosting schools. Third, it informs policymakers, humanitarian agencies, and teacher training institutions regarding the support structures required for effective curriculum reform under conditions of displacement. Finally, the study contributes to global discussions concerning educational inclusion, resilience, and equity for forcibly displaced populations.

2.0 METHODOLOGY

2.1 Research Design

This study adopted a mixed-methods, comparative case study design with primary emphasis on quantitative data collection and analysis to investigate how teachers exercise agency when implementing the Competency-Based Curriculum in crisis-affected and fragile educational ecologies across Kenya. A mixed-methods approach was uniquely suited for this research, as it prioritises the statistical tracking of structural, material, and institutional variables while simultaneously capturing the meanings, subjectivities, and lived experiences of educators who navigate these constraints on a daily basis. Rather than treating curriculum implementation as a uniform mechanical process, the integration of quantitative surveys and qualitative interviews allows for a deep, contextualised exploration of how educational policy is interpreted and implemented across distinct environments. By treating refugee, camp-based schools and urban schools integrating refugee learners as distinct institutional cases, this design uses standardised indicators to measure how variations in material resources, and localized socio-cultural conditions facilitate or restrict the achievement of teacher agency (Kole, 2026' Mazi, 2025).

2.2 Study Site, Target Population, Sampling Strategy, and Sample Size

Study Site and Target Population

The research was conducted across two distinct geographic and administrative landscapes in Kenya, reflecting diverse dimensions of educational fragility:

1. **Kakuma Refugee Camp and Kalobeyei Integrated Settlement (Turkana County):** Situated in northwestern Kenya, this site represents a mix of traditional

encampment (Kakuma) and an integrated socio-economic model (Kalobeyei) designed to blend refugee services with host-community public infrastructure.

2. **Urban Informal Settlements (Nairobi County):** Targeting schools in high-density areas such as Kangemi, Kawangware, Kibera, and Eastleigh, where refugee learners live integrated within host communities but navigate acute financial precarity, high rental costs, and complex legal vulnerabilities.

The target study population comprised three primary groups: school leadership (headteachers and senior curriculum masters), classroom teachers, and refugee learners. Crucially, the teacher population was deliberately disaggregated into three distinct professional profiles to capture variations in the iteration dimension of agency:

- *National Kenyan Teachers:* Formally trained, government-certified (TSC-employed teachers) or school-employed teachers who possess deep familiarity with the Kenyan national education system.
- *Qualified Refugee Teachers:* Formally certified educators holding diplomas or degrees from their countries of origin (such as Somalia, South Sudan, or the Democratic Republic of Congo) but facing legal barriers to formal domestic registration.
- *Incentive Teachers:* Refugee community members employed on stipends, often lacking formal, institutional teacher training qualifications but serving as critical linguistic and cultural conduits in the classroom.

Sampling Strategy and Sample Size

A purposive, non-probability sampling strategy was utilised to select schools and individual participants, ensuring that the final cohort possessed deep, firsthand experience with CBC implementation under crisis conditions. To capture a holistic view of the educational landscape, schools were selected based on high refugee student concentrations, resulting in a total quantitative sample size of 178 teachers disaggregated across two primary ecological settings: Kakuma, which accounted for 118 participants, and Nairobi, which accounted for 60 participants.

The empirical demographic data, as detailed in file Table 1 reveals a significant structural imbalance in the composition of the teaching workforce across these regions. In the remote camp setting of Kakuma, the school system relies heavily on refugee educators, who comprise 86.4% ($n = 102$) of the local workforce, with a pronounced gender distribution favouring male refugee teachers ($n = 73$) over female refugee teachers ($n = 29$). National Kenyan teachers in Kakuma represent a distinct minority at 13.6% ($n = 16$), consisting of 5 male and 11 female teachers.

Conversely, urban schooling environments within Nairobi rely almost exclusively on national teachers, who make up 93.3% ($n = 56$) of the urban sample, featuring a dominant representation of female national educators ($n = 35$) compared to male national educators

(n = 21). Refugee teachers are severely underrepresented in the urban sample, accounting for only 6.7% (n = 4), which includes 3 males and 1 female teacher. Across the entire consolidated study, the complete teaching sample (N = 178) is composed of 106 refugee teachers and 72 national teachers, with a gender distribution of 102 male teachers and 76 female teachers. This uneven baseline distribution directly dictates how past professional histories and localized gender dynamics shape real-time classroom adaptations.

Table 1. Gender of teachers

2. Gender * 4b. Are you a refugee teacher or a national teacher? * School Location Crosstabulation					
Count					
School Location			4b. Are you a refugee teacher or a		Total
			Refugee	National	
Kakuma	2. Gender	Male	73	5	78
		Female	29	11	40
	Total		102	16	118
Nairobi	2. Gender	Male	3	21	24
		Female	1	35	36
	Total		4	56	60
Total	2. Gender	Male	76	26	102
		Female	30	46	76
	Total		106	72	178

2.3 Data Collection Methods

To achieve robust data triangulation, data collection was conducted over a multi-month fieldwork period utilising four primary methods:

- **Semi-Structured Interviews (Teachers & Headteachers):** Conducted individually using flexible interview protocols, these sessions focused on how educators interpret CBC mandates, their strategies for coping with material deficits, and the degree of institutional support they receive. Interviews lasted between 45 and 60 minutes and were audio-recorded with permission.
- **Focus Group Discussions (FGDs) with Learners:** Separate, semi-structured focus groups were conducted with refugee and host-community learners aged 10 - 12 years (corresponding with Upper Primary tier). Facilitated using age-appropriate, participatory activities, the discussions explored learner perceptions of classroom activities, engagement with interactive CBC tasks, and the felt impact of teacher adaptations especially in English language classrooms.
- **Classroom Observations:** Non-participatory structured observations were conducted during active CBC lessons (focusing on language). Researchers utilized a standardized observation rubric to document actual student-to-teacher ratios, pedagogical adjustments, the presence or absence of learning materials, and the use of formative assessment techniques.

- **Document Analysis:** A systematic review of macro-level and institutional texts was performed, including the Kenya Refugee Act 2021, the Basic Education Act, Kenya Institute of Curriculum Development (KICD) CBC curriculum designs, school assessment records, and regional humanitarian education strategies.

To achieve robust data triangulation, data collection was conducted over a multi-month fieldwork period utilising a combination of structured quantitative instruments and open-ended qualitative guides. Quantitative data were captured primarily through the administration of a semi-structured Headteacher Questionnaire, which utilised a five-point Likert scale ranging from strongly disagree to strongly agree to evaluate administrative perceptions of teacher confidence, context-specific insecurity, workload, and implementation constraints. This tool provided standardised numerical ratings across multiple dimensions, including institutional structures, cultural values, and personal motivational factors.

To augment these administrative perspectives with objective environmental data, researchers deployed "**Tool 7 School Resources Observation Checklist.docx**" to record binary yes-or-no indicators regarding the functional availability of curriculum-aligned textbooks, official teachers' guides, assessment tools, and physical infrastructure. This checklist directly measured whether physical classroom conditions allowed for flexible layout modifications, group work, and formative assessment tracking required by curriculum overhauls.

These quantitative data points were directly paired with qualitative insights generated from semi-structured interviews guided by "**3_KII_Guide_for_the_Teacher_REVIEWED.docx**". This key in-depth interview tool provided open-ended probes that allowed classroom teachers to explain the exact strategies and personal teaching philosophies they use to independently navigate the resource gaps, language barriers, and instructional policies quantified in the surveys.

2.4 Data Analysis

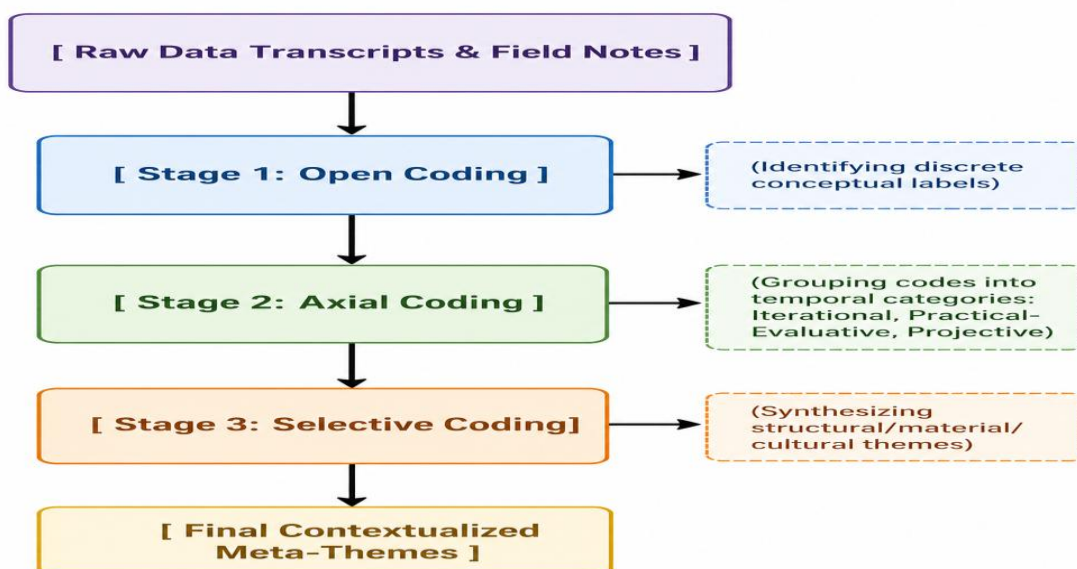
The analysis of the gathered dataset followed a distinct mixed-methods analytical framework to integrate numerical trends with narrative depth. The quantitative data generated from the *Headteacher Questionnaire* and the *School Resources Observation Checklist* were subjected to descriptive statistical analysis, frequency distribution mapping, and demographic crosstabulations using statistical software to identify systemic resource deficits and administrative patterns.

Concurrently, all audio-recorded qualitative interviews and focus group discussions were transcribed verbatim and analyzed using Computer-Assisted Qualitative Data Analysis Software. The qualitative coding architecture was explicitly mapped onto the components

of the Ecological Approach to Teacher Agency, clustering around iterative, practical-evaluative, and projective codes.

Ultimately, cross-case matrix analysis was applied to merge the datasets, systematically comparing the statistical prevalence of structural resource constraints against the qualitative narratives of pedagogical improvisation across camp-based and urban environments.

All audio-recorded interviews and focus group discussions were transcribed verbatim. The resulting text corpus, alongside field notes from classroom observations, was subjected to a rigorous, multi-stage **Thematic Analysis** framework, operationalised via Computer-Assisted Qualitative Data Analysis Software (CAQDAS) such as NVivo.



The coding architecture was explicitly mapped onto the components of the Ecological Approach to Teacher Agency:

1. *Iterational Codes*: Captured statements regarding past training, length of experience, and historical pedagogical habits.
2. *Practical-Evaluative Codes*: Clustered around structural accountability pressure, material resources (textbook ratios, digital gaps), and socio-cultural dimensions (language barriers, trauma-informed demands).
3. *Projective Codes*: Captured data regarding teachers' short-term class goals and long-term professional or community aspirations.

Cross-case matrix analysis was subsequently applied to systematically compare variations in theme prevalence and intensity between camp-based and urban environments.

2.5 Trustworthiness and Quality Assurance

To enhance the credibility, dependability, confirmability, and transferability of the findings, several quality assurance procedures were implemented. Credibility was strengthened through methodological triangulation involving interviews, focus group discussions, observations, and document analysis. Member checking was conducted with selected participants to verify the accuracy of interpretations. Dependability was enhanced through maintaining a detailed audit trail documenting research decisions throughout the study. Confirmability was supported through systematic documentation of coding procedures. Transferability will be facilitated through the provision of rich contextual descriptions of the study settings and participants (Nosek, 2026; Sharma, 2024; The Fansworth Group, 2024).

2.6 Researcher Positionality

Given the interpretive nature of qualitative inquiry, researcher positionality was continuously reflected upon throughout the study. The researchers acknowledged that personal experiences, educational backgrounds, and professional perspectives could influence data interpretation. Reflexive journals were maintained during fieldwork and analysis to identify potential biases and to ensure that participant voices remained central to the findings. This process enhanced transparency and strengthened the trustworthiness of the research (Goundar, 2025).

2.7 Ethical Considerations

Conducting research in crisis-affected environments and with displaced populations demands a heightened adherence to ethical guardrails, given the acute systemic vulnerabilities and legal precarity of the participants. Institutional ethical clearance was strictly secured from the National Commission for Science, Technology and Innovation (NACOSTI) in Kenya, alongside administrative permissions from UNHCR, County Directors of Education, Commissioners of the Ministry of Interior Security, and local camp management secretariats (Jacobsen, 2003; UNHCR, 2024). The core ethical pillars maintained throughout this study included:

- **Informed Consent and Assent:** Formal written consent was obtained from all adult participants. For refugee learners under the age of 18, a dual-gatekeeping consent protocol was enforced: formal written parental or guardian consent was obtained, followed by securing the individual learner's written or verbal assent before the commencement of any Focus Group Discussion.
- **Voluntary Participation and Withdrawal:** Participants were explicitly informed, in languages they were fully comfortable with (including English, Kiswahili, Somali, and Arabic), that their participation was completely voluntary and that they could

withdraw from the study at any point without facing structural penalties, loss of humanitarian rations, or institutional remediation.

- **Anonymity and Confidentiality:** To safeguard individuals - particularly incentive and qualified refugee teachers whose legal work status or institutional stipends could be jeopardized - all personal identifiers were strictly expunged from the dataset. Schools were assigned alphanumeric codes (e.g., School-Camp - D3), and individual participants were assigned pseudonyms.
- **Risk Mitigation and Reciprocity:** Research teams were trained in trauma-informed interviewing techniques. In instances where discussions inadvertently surfaced memories of displacement trauma, protocols were in place to refer participants to established psychosocial support networks operating within the camps or urban centers. No financial inducements were provided, but pupils were given caddies after the discussions.
- **Child Protection Protocols:** Additional safeguarding procedures were implemented for all interactions involving minors. Focus group discussions were conducted in secure, child-friendly environments, and no learner was interviewed without the presence or awareness of designated school safeguarding personnel. Researchers also adhered to national and international child protection standards, including protocols established by UNICEF and UNHCR for conducting research with displaced children.

2.8 Study Limitations

Several limitations should be acknowledged. First, the study relied primarily on qualitative data collected from selected refugee-hosting regions; therefore, it does not claim statistical generalizability to all refugee education contexts in Kenya. Second, the dynamic nature of refugee populations means that participant experiences may change over time due to policy shifts, mobility patterns, or humanitarian interventions. Third, language differences and translation processes may have influenced participant responses despite efforts to ensure linguistic accuracy. Finally, because the study focuses on headteachers', teachers', and learners' perspectives, the views of policymakers and humanitarian agency officials are only indirectly represented through document analysis (Hrvatska, 2024; Monari, 2026).

3.0 FINDINGS

3.1 Demographic Characteristics

This section presents the demographic and professional characteristics of teachers who participated in the study. Understanding these characteristics is important because teacher agency is shaped by teachers' personal backgrounds, qualifications, professional experiences, and the contexts in which they work. The analysis compares teachers working

in refugee camp schools in Kakuma with those teaching in urban schools integrating refugee learners in Nairobi.

3.1.1 Distribution of Teachers by School Location, Gender and Status

A total of 178 teachers participated in the study, comprising 118 teachers from camp-based schools in Kakuma and 60 teachers from urban schools in Nairobi. Overall, male teachers constituted 57.3% (n = 102) of the sample, while female teachers accounted for 42.7% (n = 76). Refugee teachers comprised the majority of respondents (59.6%, n = 106), while national teachers accounted for 40.4% (n = 72). Table 2 presents these findings.

Table 2 Distribution of Teachers by School Location, Gender and Status

Location	Total	Male	Female	Refugee	National
Camp-Kakuma	118	78	40	102	16
Urban-Nairobi	60	24	36	4	56
Total	178	102	76	106	72

The findings reveal notable differences between the two study contexts. In Kakuma, male teachers constituted nearly two-thirds of the teaching workforce, while female teachers accounted for approximately one-third. This pattern may reflect broader challenges affecting women's participation in teaching within refugee settings, including cultural expectations, educational opportunities, and mobility constraints. Conversely, urban schools in Nairobi exhibited a more balanced gender composition, with female teachers slightly outnumbering their male counterparts.

The results further demonstrate a stark contrast in teacher status across the two locations. In Kakuma, refugee teachers dominated the teaching force, accounting for more than 86% of all teachers. This reflects the long-standing reliance on refugee educators within camp-based education systems, where refugee teachers often serve as critical providers of educational services despite facing limitations related to certification, remuneration, and professional advancement. In contrast, urban schools were largely staffed by national teachers, with refugee teachers representing only a small minority. This difference highlights the distinct institutional arrangements governing refugee education in camps and urban areas.

From a teacher agency perspective, these contextual differences are important because refugee teachers and national teachers often operate under different professional, legal, and social conditions. Such variations may influence teachers' autonomy, access to professional development opportunities, participation in decision-making processes, and their ability to implement curriculum reforms effectively.

3.1.2 Distribution of Teachers Trained in CBC by School Location

Teachers were asked to indicate the number of CBC-related trainings they had attended during the previous three years. The findings are presented in Table 3.

Table 3 Distribution of Teachers' Training by School Location

Training Category	Camp-Based n (%)	Urban n (%)	Total N (%)	χ^2	p
None	5 (5.2%)	4 (7.3%)	9 (5.9%)	2.788	0.248
1–3 Trainings	77 (79.4%)	37 (67.3%)	114 (75.0%)		
4+ Trainings	15 (15.5%)	14 (25.5%)	29 (19.1%)		

The majority of teachers across both contexts reported participating in at least one CBC-related training programme. Three-quarters of all respondents (75.0%) indicated attending between one and three training sessions, suggesting that most teachers had received some level of exposure to curriculum reform initiatives.

A higher proportion of urban teachers (25.5%) reported attending four or more trainings compared to their counterparts in Kakuma (15.5%). This may indicate greater access to professional development opportunities in urban areas, where government agencies, NGOs, and educational institutions are more accessible. Urban schools may also benefit from stronger professional networks and easier access to training centres.

However, the relationship between school location and training exposure was not statistically significant ($\chi^2 = 2.788$, $p = 0.248$). This suggests that although numerical differences exist, teachers in both contexts generally had comparable opportunities to access CBC-related professional development.

From the perspective of teacher agency, this finding is encouraging. Professional development is widely recognised as a key enabler of agency because it enhances teachers' knowledge, confidence, and ability to make informed instructional decisions. The relatively high levels of training reported in both contexts suggest that most teachers had at least some preparation for implementing CBC. Nevertheless, the lower proportion of teachers receiving extensive training in Kakuma may limit opportunities for deeper engagement with curriculum reforms and innovative pedagogical practices.

3.1.3 Academic Qualifications of Teachers

Teachers were asked to indicate their highest academic qualification. The results are presented in Table 4.

Table 4 Academic Qualifications of Teachers by School Location

Academic Qualifications	Camp-Based n (%)	Urban n (%)	Total N (%)	χ^2	p
Certificate	70 (59.3%)	19 (31.7%)	89 (50.0%)	22.266	0
Diploma	28 (23.7%)	13 (21.7%)	41 (23.0%)		
Degree	13 (11.0%)	24 (40.0%)	37 (20.8%)		
Other	7 (5.9%)	4 (6.7%)	11 (6.2%)		

The findings reveal substantial differences in academic qualifications between teachers in Kakuma and Nairobi. Overall, half of all respondents possessed certificate-level qualifications, while approximately one-fifth held university degrees.

A closer examination of the data shows that certificate qualifications were much more common among teachers in Kakuma (59.3%) than among teachers in Nairobi (31.7%). Conversely, degree-level qualifications were significantly more prevalent among urban teachers, where 40.0% held degrees compared to only 11.0% in Kakuma.

The association between school location and academic qualification was statistically significant ($\chi^2 = 22.266$, $p < 0.001$), indicating that teacher qualifications varied systematically across the two contexts.

These findings reflect the structural realities of refugee education. Many refugee teachers in camp settings face barriers to accessing higher education, professional certification, and career progression opportunities. Despite these challenges, refugee teachers continue to play a central role in delivering education services. In contrast, urban schools often attract teachers with higher academic credentials due to stronger recruitment systems and greater professional opportunities.

From a teacher agency perspective, academic qualifications can enhance teachers' confidence, pedagogical knowledge, and ability to engage critically with curriculum reforms. Teachers with higher qualifications may be better positioned to interpret CBC requirements, adapt instructional strategies, and participate in school-level decision-making processes. However, qualifications alone do not determine agency; contextual support, professional development, and school leadership remain equally important.

3.1.4 Teaching Experience by Academic Qualification

Table 5 presents the relationship between teachers' academic qualifications and years of teaching experience.

Table 5 Teachers' Years of Experience by Academic Qualification

Academic Qualifications	0–2 Years	3–14 Years	15+ Years	χ^2	p
Certificate	40 (44.9%)	45 (50.6%)	4 (4.5%)		
Diploma	17 (41.5%)	20 (48.8%)	4 (9.8%)		
Degree	12 (32.4%)	19 (51.4%)	6 (16.2%)		
Other	5 (45.5%)	4 (36.4%)	2 (18.2%)		
Total	74 (41.6%)	88 (49.4%)	16 (9.0%)	6.672	0.352

Nearly half of all teachers (49.4%) had between three and fourteen years of teaching experience, while 41.6% had less than three years of experience. Only 9.0% reported having fifteen or more years of teaching experience.

Across all qualification categories, the largest proportion of teachers fell within the three-to-fourteen-year experience range. Teachers holding degrees were somewhat more likely to have extensive teaching experience than those holding certificates or diplomas. For example, 16.2% of degree holders had fifteen or more years of experience, compared to only 4.5% among certificate holders.

However, the relationship between academic qualification and teaching experience was not statistically significant ($\chi^2 = 6.672$, $p = 0.352$). This suggests that teachers with different qualification levels were broadly distributed across experience categories.

The findings indicate a relatively young and moderately experienced teaching workforce. This has important implications for curriculum reform implementation. Teachers in the early and middle stages of their careers may be more receptive to innovation and educational change, yet they may also require additional mentoring and support to navigate the complexities of CBC implementation in fragile and refugee-affected settings.

Viewed through the lens of teacher agency, experience and qualifications provide important professional resources that shape teachers' confidence and decision-making. However, the absence of a significant relationship suggests that experience alone does not automatically translate into greater professional agency. Rather, agency is likely to emerge through the interaction of personal capabilities, institutional support, available resources, and the broader socio-cultural environment in which teachers work.

3.1.5 Summary

The results indicate that there were important contextual differences between teachers of Kakuma and Nairobi. Camp-based schools were predominantly staffed by refugee teachers with certificate-level qualifications, while urban schools were more likely to employ nationally trained teachers with university degrees. Despite these differences, teachers in

both contexts reported substantial exposure to CBC-related training and were generally concentrated within the early to middle stages of their professional careers. These characteristics provide important context for understanding subsequent findings on teacher agency, curriculum reform implementation, and the structural, cultural, material, and personal factors that shape teaching practices in fragile and refugee-affected educational settings.

3.2 Factors Influencing Teacher Agency and Curriculum Reform in Crisis Contexts

This section presents the overall scores for the key factors shaping teacher agency and the implementation of the CBC in schools with refugee learners in both rural camp-based settings (Kakuma) and urban settings (Nairobi). The analysis highlights not only the overall pattern across all schools, but also the similarities and differences between the two contexts.

Table 6. Mean Scores and Comparison of Factors Influencing Teacher Agency and Curriculum Reform in Refugee-Serving Schools by Location

Index	Total Mean (SD)	Kakuma Mean (SD)	Nairobi Mean (SD)	t	p
Context Support Index	3.76 (0.45)	3.72(0.43)	3.84(0.49)	-1.63	0.104
Teacher Agency Index	4.06 (0.36)	4.12(0.36)	3.94(0.35)	3.15	0.002
CBC Agency Index	3.98 (0.44)	3.98(0.41)	3.99(0.50)	-0.21	0.837
Teacher Beliefs Index	4.06 (0.48)	4.01(0.51)	4.15(0.42)	-1.83	0.069
Structural Factors Index	3.84 (0.53)	3.83(0.55)	3.87(0.51)	-0.46	0.649
Cultural Factors Index	3.71 (0.55)	3.74(0.55)	3.66(0.56)	0.98	0.329
Material Factors Index	3.47 (0.83)	3.29(0.85)	3.8(0.67)	-4.05	0.000
Personal Factors Index	4.07 (0.46)	4.02(0.46)	4.16(0.45)	-1.87	0.063
CBC Reform Index	4.02 (0.51)	4.01(0.52)	4.05(0.50)	-0.53	0.595

3.2.1 Overall Pattern Across Schools with Refugee Learners

The overall results paint a largely positive picture of teacher agency and curriculum reform implementation in schools where refugee learners are enrolled. Teachers reported high levels of agency ($M = 4.06$) and strong professional beliefs ($M = 4.06$), indicating that most teachers felt capable of making instructional decisions and remained committed to supporting learner success despite working in challenging environments.

Similarly, the Personal Factors Index recorded the highest overall score ($M = 4.07$), suggesting that teachers' motivation, sense of purpose, confidence, and willingness to

adapt are major strengths across both urban and rural contexts. The CBC Reform Index ($M = 4.02$) and CBC Agency Index ($M = 3.98$) further show that teachers generally viewed themselves as active participants in implementing the CBC rather than passive recipients of policy directives.

However, the findings also reveal an important challenge. Material factors received the lowest overall rating ($M = 3.47$, $SD = 0.83$), indicating that shortages of learning materials, infrastructure, teaching supplies, and other resources remain a significant obstacle to effective CBC implementation. The relatively large standard deviation suggests that resource conditions vary considerably from one school to another.

3.2.2 Context Support in Urban and Rural Settings

Teachers in both Kakuma and Nairobi reported moderately positive levels of contextual support. Nairobi teachers recorded a slightly higher mean ($M = 3.84$) than teachers in Kakuma ($M = 3.72$), but the difference was not statistically significant ($t = -1.63$, $p = .10$).

This suggests that, regardless of location, teachers generally perceive their schools, colleagues, and surrounding environments as offering some degree of support for their work. In practical terms, teachers in both settings appear to benefit from professional relationships and institutional structures that help them navigate the demands of teaching in refugee-affected contexts.

3.2.3 Teacher Agency: A Rural Strength

A notable finding emerged in relation to teacher agency. Teachers in Kakuma reported significantly higher levels of agency ($M = 4.12$) than their counterparts in Nairobi ($M = 3.94$), and this difference was statistically significant ($t = 3.15$, $p < .01$).

This result may initially seem surprising given the greater resource constraints in camp-based schools. However, it reflects the reality that teachers in rural refugee settings often have to make frequent on-the-spot decisions, adapt lessons creatively, and respond flexibly to learners' needs. In contexts where formal systems and resources are limited, teachers may develop a stronger sense of professional ownership and practical autonomy.

In human terms, many Kakuma teachers appear to have become problem-solvers out of necessity. Their daily work requires improvisation, adaptation, and initiative, which may strengthen their perception of themselves as active agents in the educational process.

3.2.4 Professional Beliefs and Personal Motivation

Teachers in Nairobi reported slightly stronger professional beliefs ($M = 4.15$) and personal factors ($M = 4.16$) than teachers in Kakuma (beliefs $M = 4.01$; personal factors $M = 4.02$).

Although these differences approached statistical significance ($p = .07$ and $p = .06$, respectively), they did not reach the conventional $.05$ threshold.

The pattern nevertheless suggests that urban teachers may feel somewhat more confident, professionally supported, or personally empowered in their roles. Possession of higher academic qualifications, broader professional networks, and more frequent training opportunities in urban areas may contribute to these perceptions.

Importantly, both groups scored above 4.0 on these indices, indicating that teachers across contexts remain highly committed to the value of education and to their learners' success.

3.2.5 Structural and Cultural Conditions

Structural factors were rated positively in both contexts (Kakuma $M = 3.83$; Nairobi $M = 3.87$), with no significant difference between locations ($t = -0.46$, $p = .65$). This suggests that teachers generally perceive school leadership, policy guidance, and institutional arrangements as reasonably supportive of CBC implementation.

Cultural factors also received moderately positive ratings (Kakuma $M = 3.74$; Nairobi $M = 3.66$), and the difference was not statistically significant ($t = 0.98$, $p = .33$). Teachers in both settings appear to be navigating diverse cultural expectations and community relationships with relative success.

These findings indicate that the social and institutional environments surrounding teachers are broadly comparable across urban and rural refugee-serving schools, even though the specific challenges they face may differ.

3.2.6 Material Conditions: The Clearest Urban–Rural Divide

The most pronounced difference between the two contexts was found in material conditions. Nairobi schools recorded a substantially higher Material Factors score ($M = 3.80$) than Kakuma schools ($M = 3.29$), and the difference was statistically significant ($t = -4.05$, $p < .001$).

This finding confirms that resource disparities remain a defining feature of refugee education in Kenya. Urban schools generally have better access to textbooks, infrastructure, electricity, teaching supplies, and supplementary learning materials, while camp-based schools continue to face more severe shortages.

For teachers in Kakuma, this means that implementing CBC often involves working around limited resources, sharing materials, modifying activities, and relying heavily on personal creativity. The lower material score therefore highlights a structural challenge rather than a lack of teacher commitment.

3.2.7 CBC Reform Across Contexts

Despite the differences in agency and resources, teachers in both locations reported very similar levels of engagement with CBC reform. The CBC Agency Index (Kakuma $M = 3.98$; Nairobi $M = 3.99$; $p = .84$) and the overall CBC Reform Index (Kakuma $M = 4.01$; Nairobi $M = 4.05$; $p = .59$) showed no significant differences between the two contexts.

This is an encouraging finding. It suggests that teachers in both urban and rural refugee-serving schools are broadly aligned in their commitment to implementing CBC and in their understanding of its goals. Even where resources are limited, teachers continue to engage actively with the reform agenda.

3.2.8 Summary

The findings reveal a nuanced picture of teacher agency and curriculum reform in crisis-affected educational settings. Teachers across both Kakuma and Nairobi demonstrated strong professional commitment, positive beliefs about education, and a high willingness to implement CBC. The similarities in CBC-related indices indicate that curriculum reform has gained considerable acceptance across contexts.

At the same time, the results highlight two important realities. First, teachers in Kakuma reported significantly stronger agency, suggesting that challenging rural refugee contexts may foster greater day-to-day autonomy and problem-solving. Second, teachers in Nairobi benefited from significantly better material conditions, underscoring the persistent resource inequalities between urban and camp-based schools.

Taken together, the findings suggest that the main challenge facing refugee-serving schools is not a lack of teacher motivation or commitment. Rather, it is the uneven distribution of resources that shapes how effectively teachers can translate their agency into classroom practice. Strengthening material support for camp-based schools while continuing to invest in teacher development across all contexts is likely to have the greatest impact on the successful implementation of curriculum reform and learner outcomes.

3.3 Analysis of the Factors Influencing Teacher Agency and Curriculum Reforms

3.3.1 Teacher Agency in Schools with Refugee Pupils

The teacher agency in this study captures the extent to which teachers perceive themselves as active professionals who exercise judgement, initiative, and adaptability in their classroom practice and engagement with curriculum reform. It reflects multiple dimensions of agency, including instructional decision-making, professional empowerment,

resourcefulness, willingness to innovate, and collaboration with colleagues. Taken together, these dimensions position teacher agency as both an individual and relational construct, shaped not only by personal capacity but also by the professional environments in which teachers work.

The findings show that teachers working in refugee-serving schools demonstrate strong and consistent levels of agency, even within contexts marked by uncertainty, resource constraints, and diverse learner needs. Across both Kakuma and Nairobi, teachers report a high degree of professional autonomy and confidence in their ability to support learners and implement curriculum reforms. Rather than acting as passive implementers of policy, they emerge as active professionals who continuously adjust and refine their practice in response to classroom realities.

A key expression of this agency is teachers' capacity to make instructional decisions grounded in learners' needs. An overwhelming majority agreed with the statement, *"I make personal choices about my teaching practices based on students' needs and curriculum expectations"* ($M = 4.35$; 94.4% agreement). This pattern is consistent across both contexts, with similarly high agreement in Kakuma (94.9%) and Nairobi (93.3%). This suggests that teachers exercise strong professional judgement in interpreting and applying the curriculum. During the interviews, one teacher explained:

"Autonomy means knowing when the textbook plan fails and shifting your strategy instantly. When I realise my English class cannot grasp a theoretical concept due to overcrowding, I divide pupils dynamically into peer-led learning groups right there in the room without checking a manual."

Similarly, teachers described adapting curriculum content to make it meaningful for refugee learners. A refugee teacher in Kakuma noted:

"I modify the CBC literacy materials every day. The curriculum is built on Kenyan urban context realities. I swap those out for camp-based social realities—using food distribution cards and water taps as examples."

These accounts demonstrate that teacher agency is not merely a perception but an everyday practice through which teachers interpret, adapt, and contextualize curriculum content.

The finding that teachers at Kakuma and Kalobeyi reported significantly higher agency than Nairobi teachers is also supported by qualitative evidence. Teachers repeatedly described themselves as problem-solvers who rely on creativity and initiative to overcome resource shortages and contextual challenges as one headteacher observed:

"Teachers are well trained, well-motivated and taught how to make decisions independently ... they have the freedom to decide and then implement what they want as teachers."

At the same time, the qualitative findings revealed the tensions underlying this strong agency. While teachers displayed resilience and adaptability, they often operate under significant professional pressure, including overcrowded classrooms, language barriers, and limited support systems. This helps explain why many teachers reported feeling professionally isolated despite exhibiting high levels of agency.

In practice, this reflects the demands of competency-based curriculum implementation, where teachers are expected to respond flexibly to learners with diverse linguistic, cultural, and educational backgrounds.

Teachers also expressed a strong sense of empowerment and adaptability in their professional roles. Most respondents agreed that *"I feel empowered to contribute to changes in school practices or curriculum implementation"* ($M = 4.42$; 94.4%) and *"Working in my school has strengthened my ability to be resourceful"* ($M = 4.42$; 94.4%). Notably, agreement on both statements is higher among teachers in Kakuma and Kalobeyi (96.6%) than in Nairobi (90.0%). This pattern suggests that while refugee camp schools face more constrained conditions, these very challenges may be fostering stronger forms of improvisation, creativity, and self-reliance among teachers. In such contexts, agency is expressed not only through formal authority but also through everyday problem-solving and adaptive practice under pressure.

At the same time, the findings point to an important tension related to professional connectedness. A large majority of teachers agreed with the statement, *"I often feel isolated in my professional role"* ($M = 4.32$; 91.0%). This sense of isolation is more pronounced in Kakuma and Kalobeyi ($M = 4.42$; 94.1%) than in Nairobi ($M = 4.12$; 85.0%), suggesting uneven access to collegial support, mentoring, and professional collaboration. While teachers in Kakuma and Kalobeyi reported higher levels of empowerment and resourcefulness, these strengths appear to coexist with weaker professional networks and reduced opportunities for sustained peer interaction.

Overall, these findings portray teachers as committed, adaptive, and capable professionals who exercise meaningful agency in demanding educational environments. Their ability to make learner-centred decisions, engage in curriculum implementation, and creatively respond to contextual constraints underscores their central role in sustaining learning for refugee and host-community learners. However, the persistent sense of professional isolation signals a need for stronger collaborative structures, peer learning opportunities,

and sustained professional support systems; particularly in camp-based settings to further strengthen teacher agency and enhance curriculum reform implementation.

3.3.2 Structural Factors Influencing Teacher Agency and CBC Reforms

The structural factors in this study capture the extent to which institutional and system-level conditions shape teachers' ability to exercise agency and implement curriculum reforms effectively. It reflects key dimensions such as school leadership support, participation in decision-making structures, access to institutional resources, policy alignment, and the degree of flexibility within the broader education system. Together, these indicators provide insights into the extent formal school and system structures facilitate or limit teachers' professional practice. In this section, the index is used to examine how structural conditions within schools and the wider education system influence teacher agency in both Kakuma and Nairobi contexts.

These findings are strongly echoed in the qualitative data. Teachers frequently highlighted the importance of supportive leadership in enabling professional autonomy. One headteacher explained:

"My approach is to establish collaborative professional networks. I delegate significant instructional authority to department heads, allowing them to adjust timetables dynamically when classroom conditions become untenable."

The findings indicate that structural factors within schools generally provide a supportive environment for teacher agency and curriculum reform implementation in refugee school contexts. Teachers reported generally positive perceptions of institutional support, school leadership, policy guidance, and participation in decision-making processes. However, these strengths are tempered by broader systemic constraints that continue to limit the extent to which teachers can fully exercise professional judgement in responding to learners' needs.

Teacher participation in school governance emerges as a notable strength. Most teachers agreed with the statement, *"I have access to school-level committees where teachers can contribute to decision-making"* ($M = 4.10$; 88.8% agreement). Agreement is consistently high in Kakuma and Kalobeyei (89.8%), and Nairobi (86.7%) suggesting that teachers are meaningfully included in school-level decision-making structures. This inclusion is important because it enables teachers to shape practices that directly influence teaching and learning, thereby reinforcing ownership of curriculum reform processes and strengthening their sense of agency within the school environment.

Teachers also reported strong institutional support and generally positive leadership practices. A large majority agreed that *"I have access to the institutional support needed to*

perform effectively as a teacher" ($M = 4.09$; 83.7%) and that *"The school leadership enforces policies that align with CBC implementation goals"* ($M = 4.15$; 83.1%). While perceptions are positive across both contexts, teachers in Nairobi report slightly stronger agreement on leadership support and policy alignment than those in Kakuma and Kalobeyei. This suggests that school leadership plays a central role in translating policy into practice, offering guidance, and sustaining momentum for curriculum reform implementation.

Despite these enabling conditions at the school level, teachers expressed clear concerns about the rigidity of the wider education system. The statement *"The education system allows me to be flexible and responsive to my students' needs"* records the lowest level of agreement ($M = 2.46$; 19.1%), with similarly low ratings in Kakuma (20.3%) and Nairobi (16.7%). This indicates a shared perception that systemic structures often limit teachers' ability to adapt instruction to the realities of their classrooms, particularly in refugee-serving contexts. This concern is further reflected in agreement with *"System-level constraints (e.g., policy limitations, inadequate funding) restrict my capacity to implement reforms"* ($M = 3.63$; 66.3%), highlighting the persistent influence of external constraints on classroom practice.

Teachers also emphasized the role of professional development and institutional support:

"Professional development opportunities help us in curriculum design and in methodology, especially on enquiry-based learning. It also gives me a sense of direction."

The qualitative findings help to explain the low rating for system flexibility ($M = 2.46$). Teachers repeatedly described a mismatch between national policy expectations and classroom realities. A deputy headteacher in Kakuma observed:

"The sub-county quality assessors arrive with standard evaluation rubrics designed for well-resourced schools in central Kenya... their policy frameworks are completely uncoupled from camp realities."

These findings suggest that while school leadership is generally supportive, broader system structures continue to constrain teachers' ability to fully respond to the needs of learners in crisis-affected settings.

Overall, the findings suggest that while school-level structures provide meaningful support for teacher agency and curriculum reform, broader systemic rigidity continues to limit flexibility in practice. Teachers appear well supported within their schools but constrained by policy and resource limitations beyond the school level. Strengthening system-level responsiveness and reducing structural barriers may therefore be critical for enhancing teacher agency and improving the effectiveness of curriculum reform implementation across both refugee camp and urban school settings.

3.3.3 Cultural Factors Influencing Agency and CBC Reforms

The cultural factors capture the extent to which cultural norms, community expectations, and institutional practices shape teacher agency and curriculum implementation. It reflects dimensions such as cultural relevance in teaching, community influence on instructional decisions, inclusivity within school environments, and the emphasis placed on cultural sensitivity in professional practice. These indicators help to illuminate how teachers navigate cultural diversity in refugee-serving schools and how such cultural dynamics interact with formal curriculum expectations. In this section, the index is used to explore the role of cultural context in shaping teacher agency across Kakuma and Nairobi.

The Cultural Factors Index highlights the influence of community expectations, cultural diversity, and inclusivity on teacher agency and curriculum implementation. Quantitative findings indicate that teachers value culturally relevant teaching and generally operate in inclusive environments.

The qualitative findings reveal why cultural responsiveness is so important. Teachers work in classrooms characterised by extraordinary diversity. One headteacher explained:

"I've got people from South Sudan, Somali, Burundi, Congo. All these people are coming and they have expectations. But you try to find a neutral survival mode for all the communities."

Language barriers emerged as a major challenge:

"The linguistic diversity is beautiful but instructionally overwhelming. When you have five different mother tongues in a single grade, standard CBC English literacy delivery breaks down."

The findings show that cultural factors play a significant and often enabling role in shaping teacher agency and curriculum implementation in refugee-serving schools. Teachers generally report that cultural relevance, community expectations, and inclusivity influence their professional practice, although the strength of this influence varies across different dimensions.

A particularly strong finding is teachers' agreement with the statement, *"I am encouraged to use culturally relevant teaching materials"* ($M = 4.47$; 93.3% agreement). Agreement is high in Kakuma and Kalobeyei (94.9%) and Nairobi (90.0%), indicating a widespread recognition of the importance of cultural relevance in teaching. In practice, this reflects the diverse nature of refugee-serving classrooms, where learners come from multiple linguistic, national, and cultural backgrounds. Teachers therefore view culturally responsive teaching not as optional, but as essential for inclusion, engagement, and meaningful learning.

Community expectations also play a notable role in shaping instructional practice. Most teachers agreed that *“Community expectations influence how I plan and deliver lessons”* ($M = 3.99$; 78.7%), with higher agreement in Kakuma and Kalobeyei (81.4%) than in Nairobi (73.3%). This suggests that teachers remain attentive to the values and expectations of the communities they serve and, in many cases, integrate these considerations into their classroom decisions. In refugee contexts, where schools often serve both refugee and host-community populations, maintaining alignment with community expectations appears to be an important aspect of effective teaching practice.

Teachers also described navigating conflicting community expectations: *“The parents do not want the children to learn Kiswahili... This has created a huge language barrier.”*

These findings help explain why teachers strongly support culturally relevant teaching materials while simultaneously reporting only moderate influence of cultural norms on curriculum decisions. Teachers appear to balance cultural sensitivity with professional judgement and curriculum requirements.

The findings further indicate that schools promote inclusivity and cultural awareness in their internal practices. Teachers agreed to the statement: *“My school treats teachers from different backgrounds equally”* ($M = 4.00$; 77.0%) and that *“Cultural sensitivity is emphasised during school-based trainings”* ($M = 4.00$; 77.0%). These results suggest that schools are making deliberate efforts to foster inclusive environments that value diversity among both teachers and learners. Such practices are particularly important in schools within refugee contexts, where cultural diversity is a defining feature of everyday school life.

However, teachers report weaker levels of direct cultural influence on curriculum decision-making and instructional autonomy. Less than half agreed that *“My teaching is influenced by cultural expectations of learners and parents”* ($M = 2.99$; 37.1%), while only 48.9% agreed that *“Cultural norms in my school or community influence how I engage with curriculum reforms”* ($M = 3.21$). These findings suggest that although cultural relevance is valued and encouraged, curriculum implementation is still primarily shaped by professional standards and policy frameworks rather than direct community or cultural pressures.

Overall, the findings indicate that cultural factors generally support teacher agency and curriculum reform implementation in refugee-serving schools. Teachers are encouraged to adopt culturally relevant approaches and operate within relatively inclusive environments, while also remaining responsive to community expectations. At the same time, the moderate influence of direct cultural pressures suggests that teachers actively balance cultural responsiveness with professional judgement and curriculum requirements. This

balancing act appears particularly important in ensuring that curriculum reforms remain both contextually relevant and academically coherent in diverse refugee and host-community learning environments.

3.3.4 Material Factors Influencing Agency and CBC Reforms

The material factors highlight how school resources and physical conditions shape teachers' ability to exercise agency and implement curriculum reform. Three key areas stand out most clearly: access to learning materials, availability of supplementary instructional resources, and the overall quality of the teaching environment.

Access to core learning materials emerges as the strongest and most consistent enabling factor. Teachers broadly agree that *"Learners have access to sufficient textbooks and learning materials, including those with disabilities"* ($M = 3.85$; 76.4%). This suggests that, across Kakuma, Kalobeyei, and Nairobi, basic instructional resources are relatively available, allowing teachers to focus more on delivery than on compensating for missing core content. However, this does not necessarily imply equity in quality or adequacy, but rather a general baseline availability of essential materials.

Material factors recorded the lowest overall scores, highlighting resource limitations as one of the most significant barriers to effective CBC implementation.

The qualitative findings vividly illustrate these challenges. Teachers repeatedly described shortages of textbooks, teaching materials, infrastructure, and classroom space. One deputy headteacher reported that *"We have a textbook ratio of one book to six or seven children."*

Another teacher explained that *"Books were received for Grade 9 but none for Grade 7 and 8. Therefore the students in Grade 7 and 8 used personal research materials."*

The shortages notwithstanding, teacher creatively improvise the learning and teaching resources as explained by one teacher: *"Managing curriculum demands requires massive improvisation. For creative arts, we gather local clay from nearby riverbeds and use charcoal from community kitchens."*

These qualitative responses explain the regression findings that material constraints are associated with stronger teacher agency. Rather than becoming passive, many teachers respond to resource shortages through innovation, adaptation, and problem-solving.

In the case of supplementary instructional resources, both high importance and clear contextual disparities are evident. The statement *"Supplementary materials (e.g., digital content, reading aids) are available and support curriculum delivery"* records a total mean of 3.52 (61.2%), with Nairobi reporting a much higher level of agreement (4.12; 83.3%)

compared to Kakuma and Kalobeyei ($M = 3.22$; 50.0%). This indicates that while such resources significantly enhance curriculum delivery, their uneven distribution limits teacher flexibility, particularly in more resource-constrained settings where teachers may rely more heavily on improvisation.

The broader physical learning environment remains a critical constraint on teacher agency. The item *"The physical environment (classroom infrastructure, sanitation, ventilation) supports effective teaching"* (Total mean = 3.21; 46.6%) reflects only moderate agreement overall, with stronger perceptions in Nairobi ($M = 3.43$; 51.7%) than Kakuma and Kalobeyei ($M = 3.10$; 44.1%). This pattern is reinforced by related indicators such as *"My classroom is equipped with furniture suitable for learners' age and needs, including those with disabilities"* ($M = 2.79$; 37.6%), which shows particularly low adequacy in Kakuma and Kalobeyei ($M = 2.36$; 22.0%). These conditions directly shape what teachers can realistically do in classrooms, often constraining learner-centred and inclusive pedagogical approaches.

In essence, the findings indicate that while basic instructional materials are relatively available, disparities in supplementary resources and physical infrastructure continue to shape unequal conditions for teacher agency and curriculum implementation across school locations.

3.3.5 Personal Factors Influencing Teacher Agency and CBC Reforms

The personal factors show that teacher agency is strongly grounded in internal dispositions such as beliefs, motivation, emotional well-being, and professional identity. Across Kakuma, Kalobeyei, and Nairobi, the findings indicated generally high levels of personal commitment to teaching and openness to curriculum reform, with only a few areas of concern related to emotional and collegial support.

Personal factors emerged as one of the strongest dimensions in the study, reflecting high levels of motivation, purpose, and professional commitment. The qualitative findings reveal a deep sense of vocation among teachers. One participant observed that *"The teacher must be a conflict resolver. The teacher has to put a lot of personal initiative in the scenario where resources are not provided."*

Another noted:

"The teacher is also unlearning old teaching methods that are not applicable in the refugee context."

These narratives show that teachers see themselves as more than just curriculum implementers. They view themselves as advocates, counsellors, mentors, and mediators who constantly modify their methods to assist pupils dealing with crisis and displacement.

Teachers' core professional beliefs and sense of purpose emerge as the strongest drivers of agency. The statement *"My beliefs about the purpose of education influence how I teach"* records a very high mean of 4.23 (90.4%), suggesting that classroom practices are strongly shaped by personal educational values rather than external directives alone. This is reinforced by similarly high agreements with *"I have a clear sense of purpose in my teaching role"* ($M = 4.45$; 94.4%) and *"I feel that my work as a teacher has a meaningful impact"* ($M = 4.44$; 93.3%). These results point to teaching as a value-driven and purposeful practice, where teachers see themselves as active contributors to learner development.

Professional motivation and readiness for change are also notably strong across both contexts. The statement *"I am open to experimenting with new teaching strategies"* records one of the highest means (4.50; 95.5%), indicating a strong willingness to innovate in classroom practice. This is complemented by high agreement with *"I am motivated to grow professionally, despite challenges"* (4.39; 95.5%) and *"I feel professionally skilled and confident in adapting to educational reforms"* (3.99; 83.1%). Collectively, these findings suggest that teachers generally do not resist curriculum reform at a personal level; rather, they are inclined toward adaptation and continuous professional growth.

However, emotional and relational dimensions present a more uneven picture. While *"My emotional well-being affects my decisions and teaching actions"* records a very high mean ($M = 4.25$; 93.3%), indicating strong awareness of emotional influences on practice, perceived support systems are weaker. The item *"I feel emotionally supported by my colleagues and school community"* records a low mean of 3.38 (56.7%), pointing to gaps in collegial and institutional emotional support. Similarly, *"I feel inadequate to teach diverse learners in my class"* also records 3.38 (56.7%), suggesting moderate concerns around managing learner diversity despite overall confidence in teaching practices.

The findings show a strong foundation of intrinsic motivation, professional purpose, and openness to innovation, all of which strengthen teacher agency. At the same time, gaps in emotional support and confidence in handling diverse classrooms point to areas where teacher agency could be further reinforced through strengthened collegial support systems and targeted professional development.

3.4 Comparative Analysis of Teacher Agency in Relation to Contextual Factors

3.4.1 Teacher Status

Analysis was done on a comparison of teacher agency and CBC reform index scores between refugee teachers and national teachers, alongside statistical significance levels. The results are demonstrated in Table 7.

Table 7 Differences in Teacher Agency and CBC Reform Index by Teacher Status (Refugee vs National Teachers)

Index	Refugee Teachers (Mean $\pm$ SD)	National Teachers (Mean $\pm$ SD)	p-value
Teacher Agency	4.15 $\pm$ 0.36	3.93 $\pm$ 0.327	p = 0.000
CBC Reform	4.03 $\pm$ 0.49	4.0 $\pm$ 0.54	p = 0.673

The refugee teachers report significantly higher teacher agency ($M = 4.15$, $SD = 0.36$) than national teachers ($M = 3.93$, $SD = 0.33$), with a statistically significant difference ($p = 0.000$). This suggests stronger perceived autonomy, adaptability, and instructional innovation among refugee teachers, likely driven by resource constraints and diverse learner needs requiring greater improvisation in practice. The CBC reform index shows almost identical scores between refugee teachers ($M = 4.03$, $SD = 0.49$) and national teachers ($M = 4.00$, $SD = 0.54$), with no statistically significant difference ($p = 0.673$). This suggests that both groups experience and respond to CBC reforms in very similar ways. Teachers across both contexts appear to share a common understanding of the reform and operate under comparable training, policy guidance, and professional expectations. In practical terms, CBC implementation seems to function as a system-wide framework that shapes teaching practice consistently, regardless of school setting or teacher status.

In essence, the findings point to an important contrast between the two indices. While teacher agency differs significantly between refugee and national teachers, engagement with CBC reform does not. This indicates that although teachers' sense of autonomy and adaptability is shaped by their working environments, the curriculum reform itself is experienced as a shared institutional structure across both refugee and national education systems.

3.4.2 School Type

Table 8 compares teacher agency and structural factors between teachers in Kakuma and Nairobi, highlighting both similarities and differences in how school context shapes teacher experiences.

Table 8 Differences in Teacher Agency and Structural Factors by School Type

Index	Kakuma (Mean $\pm$ SD)	Nairobi (Mean $\pm$ SD)	p-value
Teacher Agency	4.12 $\pm$ 0.36	3.94 $\pm$ 0.35	p = 0.002
Structural Factors	3.83 $\pm$ 0.55	3.87 $\pm$ 0.51	p = 0.649

For teacher agency, teachers in Kakuma and Kalobeyei reported higher levels ($M = 4.12$, $SD = 0.36$) compared to those in Nairobi ($M = 3.94$, $SD = 0.35$), and the difference was

statistically significant ($p = 0.002$). This suggests that teachers in Kakuma and Kalobeyei perceive themselves as more actively engaged in instructional decision-making, adaptation, and classroom-level problem-solving. One possible explanation is that the more constrained and unpredictable conditions in refugee camp schools require greater flexibility and improvisation, which may strengthen teachers' sense of agency in practice. In contrast, teachers in Nairobi, while still reporting high agency, may operate in relatively more structured environments where decision-making is more standardised and less individually driven.

In contrast, structural factors show very similar mean scores between Kakuma ($M = 3.83$, $SD = 0.55$) and Nairobi ($M = 3.87$, $SD = 0.51$), with no statistically significant difference ($p = 0.649$). This indicates that teachers in both contexts experience broadly comparable levels of institutional support, leadership engagement, policy alignment, and participation in school decision-making. It suggests that school-level structures, rather than varying substantially by location, provide a relatively consistent framework for supporting teaching and curriculum implementation across both settings.

The results highlight a clear distinction between the two dimensions: teacher agency varies significantly by school context, while structural conditions are perceived as broadly similar across Kakuma and Nairobi. This implies that differences in how teachers experience agency are not primarily driven by formal school structures, but likely by the day-to-day realities and demands of the teaching environment.

3.4.3 CBC Training

Table 9 contains findings comparing teachers who had attended between 1 and 3 CBC trainings with those who have attended 4 or more, in relation to their levels of teacher agency and engagement with CBC reforms.

Table 9 Differences in Teacher Agency and CBC Reform Index by Number of CBC Trainings

Index	1-3 Trainings	4 or More Trainings	p-value
Teacher Agency	4.02 $\pm$ 0.37	4.13 $\pm$ 0.35	$p = 0.128$
CBC Reform	4.02 $\pm$ 0.54	4.10 $\pm$ 0.54	$p = 0.486$

For teacher agency, teachers with more training (4+) reported slightly higher scores ($M = 4.13$, $SD = 0.35$) compared to those with fewer trainings ($M = 4.02$, $SD = 0.37$). However, this difference is not statistically significant ($p = 0.128$). In practical terms, this suggests that while additional training may offer some reinforcement of confidence and classroom practice, it does not substantially change how teachers perceive their ability to exercise agency. Many teachers already report high levels of agency regardless of training intensity,

indicating that experience and day-to-day classroom realities may play a stronger role than formal training alone.

A similar pattern appears for the CBC reforms index, where teachers with 4 or more trainings ($M = 4.10$, $SD = 0.54$) are only slightly higher than those with 1–3 trainings ($M = 4.02$, $SD = 0.54$), again with no statistically significant difference ($p = 0.486$). This suggests that understanding and engagement with CBC reforms are fairly consistent across teachers, regardless of how many training sessions they have attended.

Overall, the findings point to a clear message: more training does not automatically translate into noticeably higher teacher agency or stronger engagement with CBC reform. Instead, teachers across both groups appear to already share a strong baseline understanding and commitment, with other factors, such as classroom experience, school environment, and available resources. These likely play a more influential role in shaping their practice.

3.5 Determinants of Teacher Agency in Relation to Personal, Structural, Cultural, and Material Factors

A regression analysis was performed on personal, structural, cultural, and material factors to determine which factor(s) greatly influenced teacher agency. The results show that teacher agency is shaped by a mix of personal beliefs, school conditions, and broader contextual influences, but not all factors matter equally. As explained below.

Teacher beliefs stood out as the strongest positive driver of teacher agency ($\beta = 0.225$, $p = 0.001$). Teachers who strongly believed in the purpose and value of education tended to show higher confidence, initiative, and flexibility in their classroom practice. This implies that when teachers are deeply committed to the educational course, they are more likely to act independently and creatively in their teaching.

Table 10 Regression Analysis of Factors Influencing Teacher Agency

Predictor	Beta	p-value
Teacher Beliefs	0.225	0.001
Structural Factors	0.106	0.089
Cultural Factors	0.032	0.550
Material Factors	-0.155	0.000
Personal Factors	0.120	0.057
CBC Reform Support	0.067	0.302

Personal factors also show a positive influence ($\beta = 0.120$, $p = 0.057$), although the effect is just outside the conventional level of statistical significance. This suggests that motivation,

emotional well-being, and professional identity still matter, even if their influence is not strong enough to stand out statistically in this model.

Structural factors follow a similar pattern ($\beta = 0.106$, $p = 0.089$). While school leadership, institutional support, and participation in decision-making appear helpful, they do not strongly determine teacher agency on their own. Their role seems supportive rather than decisive.

A more unexpected result is seen in **material factors**, which show a significant negative relationship with teacher agency ($\beta = -0.155$, $p = 0.000$). This suggests that teachers working in more constrained environments—such as limited resources or challenging classroom conditions—often report higher agency. This may reflect a form of adaptation, where teachers become more resourceful and creative when faced with shortages and difficult working conditions.

On the other hand, **cultural factors** ($\beta = 0.032$, $p = 0.550$) and **CBC reform support** ($\beta = 0.067$, $p = 0.302$) do not show meaningful statistical influence. This means that, in this analysis, cultural expectations and exposure to CBC reforms do not significantly explain differences in teacher agency.

In essence, the findings suggest that teacher agency is driven more by teachers' internal beliefs and professional commitment than by external systems or reforms. Interestingly, difficult material conditions may sometimes strengthen agency, as teachers respond by becoming more adaptive and innovative to keep learning going.

3.6 Learner Perspectives

The learner perspectives provide important insights into how teacher agency and curriculum implementation are experienced at the classroom level. While much of this study focuses on teachers' perceptions, learners' voices reveal the practical effects of teacher agency on participation, confidence, literacy development, and classroom engagement. Across Kakuma and Nairobi, learners consistently described teachers as supportive, adaptive, and committed to helping them learn despite difficult circumstances. These accounts reinforce the quantitative findings that showed high levels of teacher agency, personal commitment, and willingness to adapt instructional practices.

3.6.1 Learner Engagement through Collaborative Learning

One of the strongest themes emerging from learner discussions is the use of collaborative and participatory teaching approaches. Learners frequently described working in groups, reading together, and supporting one another during lessons. These experiences align with the high levels of teacher agency reported in the quantitative findings, particularly teachers'

willingness to adapt teaching methods and make instructional decisions based on learner needs.

As one pupil explained: *"We read with the teacher, we read aloud and answer questions loudly in class... We read aloud as a group, and the teacher listens. Teacher explains to us the new words."*

Similarly, another learner noted: *"In the classroom... there are groups for reading. When we finish reading, the teacher takes the books and then asks questions. You raise your hand... You stand up."*

One discussant group rounded up what they do during English classes:

"We read aloud, sometimes silently, whisper reading; we write down new words; use new words to write sentences; spell out new words; pronounce new words after the teacher; teacher asks some pupils to read and others to listen; teacher reads stories to us; teacher asks who wants to read to the class; we discuss the stories in groups; we answer questions; we role play dialogues; we read as a group (unison); we read in pairs (alternate paragraphs); we observe pictures in the books and answer questions from the teacher."

These accounts suggest that teachers are actively creating learner-centred environments that encourage participation and peer learning. Such practices are particularly important in multilingual and overcrowded classrooms where individualised support may be difficult to provide.

3.6.2 Teacher Support and Confidence Building

Learners emphasised the role of teachers in building their confidence and supporting their literacy development. The findings suggest that teacher agency extends beyond instructional delivery to include emotional encouragement and personalised support. One learner described how teachers provide additional assistance outside normal classroom instruction:

"The teacher supports you like this: if you don't know how to read, they find a time to meet you in the office, give you a book, and start teaching you; they guide you through everything... until you can have courage."

Another learner explained:

"We discuss in groups during lessons... He explains to us. He shows us in the pictures/photos... we are allowed to give our own ideas and perspectives. The teacher explains for us so we feel confident and safe."

These narratives pointed out the relational dimension of teacher agency. Teachers are not simply implementing curriculum requirements; they are actively fostering learner confidence, participation, and psychological safety.

3.6.3 Motivation and Positive Learning Experiences

Learners also described classroom environments where teachers use encouragement and recognition to motivate participation and learning. Such practices appear to strengthen learner engagement and willingness to take academic risks.

One pupil explained:

"When they tell me to answer a question, my heart beats fast, but when I go to speak, I find the right answer. They clap... Sometimes the teacher gives you a gift if you answer a question that others couldn't answer... they motivate you."

This quotation illustrates how teachers create positive learning experiences that help learners overcome fear and build self-confidence. Such approaches are particularly important in fragile contexts where learners may have experienced disruption, displacement, or trauma.

3.6.4 Supporting Diverse Learners through Adaptation

Learners' accounts further demonstrate how teachers adapt instruction to address linguistic diversity and varying learning needs. The finding resonates strongly with the quantitative evidence showing high levels of teacher autonomy and adaptability.

A learner explained that,

"Not everyone is the same. Like someone might struggle with the language, and then the teacher comes to you and says, 'This is not the way. This is the way.' She reads it for you."

Teachers also use peer support strategies to overcome language barriers:

"When the teacher explains, there are people who understand and there are those who don't... Even the teacher said that if you didn't understand and you sit with someone who did, they can help you."

These examples show how teachers exercise agency by adapting instruction and creating collaborative support systems that ensure learners remain engaged despite linguistic and educational challenges.

3.6.5 Literacy Confidence and Learning Outcomes

Perhaps the most significant finding from learners is the extent to which they associate teacher support with improvements in literacy and learning. Learners frequently linked teacher guidance, group work, and encouragement to increased confidence in reading and classroom participation.

As one discussant group agreed that

"They feel confident reading and completing story books... They feel confident completing lengthy books, for example, a 150 pages book."

These perceptions suggest that teacher agency is translating into meaningful learning experiences and positive literacy outcomes. The findings reinforce the broader conclusion of the study that teacher agency plays a critical role in sustaining learning and supporting curriculum reforms in crisis and fragile contexts.

3.6.6 Summary

Overall, learner perspectives provide powerful confirmation of the quantitative findings. Learners consistently describe teachers as supportive, adaptable, encouraging, and responsive to their needs. Through group learning, individual guidance, language support, and motivational practices, teachers create environments where learners feel confident, safe, and capable of learning. These findings suggest that teacher agency is not only visible in teachers' own perceptions but is also experienced directly by learners through improved participation, confidence, and literacy development. In crisis and fragile contexts, such learner-centred practices appear to be a critical pathway through which teacher agency contributes to successful CBC implementation and improved educational outcomes.

4.0 DISCUSSIONS

4.1 Factors Influencing Teacher Agency in Crisis and Fragile Contexts

This section presents a discussion on the key factors shaping teacher agency, drawing on the teacher beliefs, structural factors, cultural factors, material factors, and personal factors indices. The findings suggest that teacher agency is influenced by both internal and external conditions, although internal factors appear to play a particularly important role. The regression analysis identified teacher beliefs as the strongest predictor of teacher agency, while material factors showed a significant but negative relationship. This finding aligns with ecological perspectives of teacher agency, which argue that agency emerges

through the interaction between individual capacities and environmental conditions rather than residing solely within individuals (Priestley et al., 2015).

The strong influence of teacher beliefs suggests that teachers who possess a clear sense of educational purpose are more likely to adapt instruction, exercise professional judgement, and persist in challenging environments. The qualitative findings reinforce this interpretation, with teachers describing themselves as problem-solvers, mentors, and advocates for learners. Similar findings have been reported in studies of teachers working in conflict-affected settings, where professional commitment often becomes a critical source of resilience and adaptability (Mendenhall et al., 2018).

Material factors present a more complex picture. Although inadequate resources constrained curriculum implementation, qualitative evidence showed that teachers frequently responded through improvisation and innovation. Rather than reducing agency, resource scarcity often stimulated creative problem-solving. Similar patterns have been observed in refugee education contexts where teachers compensate for shortages through locally developed solutions and adaptive teaching practices (Kirk & Winthrop, 2007). These findings suggest that while material resources remain important, teacher agency cannot be understood solely in terms of resource availability.

Overall, the findings demonstrate that teacher agency in crisis contexts is shaped by a dynamic interaction between beliefs, personal motivation, institutional conditions, cultural realities, and material resources.

4.2 Variations in Teacher Agency Across Refugee and Urban Contexts

The findings reveal significant differences in teacher agency between teachers working in Kakuma and Kalobeyei settlement, and those working within Nairobi. Teachers in Kakuma reported significantly higher levels of agency than their counterparts in urban schools with refugee learners. Similar differences were also observed between refugee and national teachers.

At first glance, this finding may appear counterintuitive because refugee camp schools face more severe challenges, including overcrowded classrooms, limited resources, linguistic diversity, and policy constraints. However, the qualitative findings suggest that these challenges may actually create conditions that require teachers to exercise greater autonomy and initiative. Teachers in Kakuma frequently described adapting curriculum content, modifying instructional approaches, and developing alternative learning resources to address learners' needs.

This finding supports ecological conceptions of agency, which emphasize that agency is not simply freedom from constraints but the capacity to act purposefully within them (Priestley et al., 2015). In highly constrained environments, teachers often develop stronger adaptive capacities because routine solutions are insufficient. Similar observations have been reported in refugee education settings in Jordan, Uganda, and Ethiopia, where teachers frequently become frontline innovators in response to contextual challenges (Dryden-Peterson, 2016).

At the same time, higher agency in Kakuma coexisted with stronger feelings of professional isolation. This highlights an important paradox: teachers may become highly resourceful while simultaneously lacking adequate professional support. Strengthening collaborative networks and peer-learning opportunities therefore remains critical.

4.3 Teacher Agency and Curriculum Reform in Crisis Contexts

The findings indicate a strong relationship between teacher agency and CBC implementation. Teachers reported high levels of commitment to curriculum reform, regardless of school location, teacher status, or training exposure. At the same time, they consistently highlighted structural, cultural, and material conditions that affected their ability to implement CBC effectively.

The results suggest that successful curriculum reform depends not only on policy design but also on teachers' capacity to interpret, adapt, and enact reforms within specific contexts. This finding is consistent with research showing that educational reforms are ultimately mediated through teachers' professional judgement and classroom practice (Fullan, 2016).

The qualitative findings demonstrate that teachers regularly adapt CBC materials to accommodate multilingual classrooms, interrupted learning histories, and resource limitations. Such adaptations illustrate how teacher agency functions as a bridge between policy intentions and classroom realities. Rather than implementing reform mechanically, teachers actively translate reform principles into contextually meaningful learning experiences.

The finding that CBC reform perceptions did not differ significantly across groups suggests that the reform has become a shared professional framework. However, variation in teacher agency indicates that teachers differ in their capacity to respond to reform demands. Strengthening agency may therefore be as important as strengthening reform design.

4.4 Teacher Beliefs, Professional Decision-Making, and CBC Implementation

One of the most important findings of this study is the central role of teacher beliefs in shaping professional practice and curriculum implementation. Teacher beliefs emerged as the strongest predictor of teacher agency, highlighting the importance of values, professional identity, and educational purpose.

The qualitative findings illustrate how teachers' beliefs influence everyday decisions. Teachers frequently described education as a means of restoring hope, promoting inclusion, and supporting social cohesion among refugee and host-community learners. These beliefs appeared to guide decisions about instructional adaptation, learner support, and curriculum implementation.

This finding is consistent with extensive research showing that teachers' beliefs strongly influence instructional choices, classroom interactions, and responses to reform initiatives (Pajares, 1992; Fives & Buehl, 2012). In crisis and displacement contexts, where teachers often face uncertainty and resource shortages, beliefs may become even more important because they provide a moral and professional compass for decision-making.

The findings therefore suggest that efforts to strengthen CBC implementation should move beyond technical training alone and pay greater attention to teachers' professional identities, values, and understandings of education. Teachers who believe strongly in the transformative potential of education appear more likely to exercise agency and sustain reform efforts under difficult circumstances.

5.0 RECOMMENDATIONS

5.1 Strengthen Teacher Professional Agency

Teacher development programmes should move beyond a technical approach to curriculum training and intentionally strengthen teachers' professional judgement, reflective practice, and problem-solving capacities. Professional learning should recognise teachers as active agents of change rather than implementers of policy.

5.2 Invest in Teacher Beliefs and Professional Identity

Given the strong influence of teacher beliefs on agency, professional development should include opportunities for teachers to reflect on the purpose of education, inclusion, learner well-being, and their role in supporting displaced learners. Mentorship and reflective practice forums can help reinforce these professional values.

5.3 Improve Material Conditions in Refugee-Serving Schools

CODE, the Ministry of Education, UNHCR, and partners should prioritise investments in textbooks, learning materials, classroom furniture, assistive devices, electricity, and digital learning resources. Reducing resource shortages will enable teachers to focus more on teaching and less on compensating for material gaps.

5.4 Strengthen School-Based Professional Support Systems

Schools should establish professional learning communities, peer mentoring structures, and teacher support networks. Particular attention should be given to camp-based schools where feelings of professional isolation were most pronounced.

5.5 Increase Context-Sensitive Curriculum Flexibility

The Ministry of Education and curriculum actors should provide greater flexibility in curriculum implementation guidelines to allow teachers to adapt learning experiences to multilingual, multicultural, and crisis-affected contexts while maintaining national standards.

5.6 Enhance Community Engagement

Schools should strengthen collaboration with refugee and host communities to promote culturally responsive teaching, improve learner support, and build trust around CBC implementation. Community engagement can help ensure that curriculum reforms remain relevant to local realities.

5.7 Support Teacher Well-Being and Retention

Teachers working in fragile and crisis contexts face significant emotional and professional demands. Policymakers and partners should invest in psychosocial support, counselling services, workload management, and teacher recognition initiatives to sustain motivation and professional commitment.

5.8 Future Research

Future studies should examine the long-term relationship between teacher agency and learner outcomes, particularly literacy development under CBC. Longitudinal and comparative studies across different refugee-hosting contexts would further strengthen understanding of how teacher agency contributes to educational quality in fragile settings.

6.0 CONCLUSIONS

This study examined the factors influencing teacher agency and its relationship with Competency-Based Curriculum (CBC) implementation in crisis and fragile contexts, focusing on refugee-serving schools in Kakuma and urban schools in Nairobi that integrate refugee learners. The findings demonstrate that teachers are not passive recipients of policy directives but active professionals who continuously interpret, adapt, and respond to the realities of their classrooms. Despite working in contexts characterised by displacement, resource constraints, linguistic diversity, and social vulnerability, teachers reported high levels of agency and strong commitment to curriculum reform.

The study found that teacher agency is shaped by a combination of personal, structural, cultural, and material factors. Among these, teacher beliefs emerged as the most influential determinant, highlighting the importance of professional values, educational purpose, and commitment to learner success. Personal factors such as motivation, confidence, and resilience also played an important role in supporting teachers' ability to navigate complex teaching environments. While structural support from school leadership and participation in decision-making contributed positively to agency, broader system-level constraints limited teachers' flexibility in responding to learners' diverse needs.

The findings further revealed significant differences in teacher agency between school contexts. Teachers in Kakuma reported higher levels of agency than their counterparts in Nairobi, suggesting that challenging environments may foster greater adaptability, creativity, and resourcefulness. At the same time, these teachers experienced higher levels of professional isolation, underscoring the need for stronger support systems and collaborative networks. Interestingly, perceptions of CBC reform were largely similar across teacher groups, indicating that the reform has become a shared professional framework regardless of context.

The study also highlights the central role of teacher agency in bridging the gap between curriculum policy and classroom practice. Teachers routinely adapted curriculum materials, teaching approaches, and learning activities to accommodate the realities of refugee and host-community learners. Their actions demonstrate that successful curriculum implementation depends not only on policy design and training but also on teachers' capacity to exercise professional judgement and innovation.

Overall, the study concludes that strengthening teacher agency is critical for improving educational quality and literacy outcomes in crisis and fragile contexts. Efforts to support CBC implementation should therefore go beyond technical training to address teacher beliefs, professional identity, school support systems, and material conditions. By investing in teachers as active agents of change, education stakeholders can enhance the

effectiveness, inclusivity, and sustainability of curriculum reforms for some of the most vulnerable learners.

REFERENCES

- Dryden-Peterson, S. (2016). Refugee education in countries of first asylum: Breaking open the black box of pre-resettlement experiences. *Theory and Research in Education*, 14(2), 131–148.
- Fives, H., & Buehl, M. M. (2012). Spring cleaning for the “messy” construct of teachers’ beliefs. In K. R. Harris et al. (Eds.), *APA educational psychology handbook* (Vol. 2, pp. 471–499). American Psychological Association.
- Fullan, M. (2016). *The new meaning of educational change* (5th ed.). Teachers College Press.
- Kirk, J., & Winthrop, R. (2007). Promoting quality education in refugee contexts: Supporting teacher development in Northern Ethiopia. *International Review of Education*, 53(5–6), 715–723.
- Mendenhall, M., Gomez, S., & Varni, E. (2018). Teaching amidst conflict and displacement: Persistent challenges and promising practices for refugee, internally displaced and national teachers. *NORRAG Special Issue*, 2, 52–56.
- Pajares, M. F. (1992). Teachers’ beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307–332.
- Priestley, M., Biesta, G., & Robinson, S. (2015). *Teacher agency: An ecological approach*. Bloomsbury

APPENDICES

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Table 11 Teachers' Perceptions of Teacher Agency in Refugee-Serving Schools by School Location

Statement	Kakuma Mean (%Agree)	Nairobi Mean (%Agree)	Total Mean (%Agree)
1. Teaching in my school presents particular challenges.	3.16(39.8%)	2.85(31.7%)	3.06(37.1%)
2. Teachers in my school have access to adequate resources.	3.93(80.5%)	4.10(83.3%)	3.99(81.5%)
3. I often feel isolated in my professional role.	4.42(94.1%)	4.12(85.0%)	4.32(91.0%)
4. I have adapted well to working with diverse learners.	3.77(66.1%)	3.18(45.0%)	3.57(59.0%)
5. I feel my workload is heavy.	4.15(83.9%)	4.00(78.3%)	4.10(82.0%)
6. I make personal choices about my teaching practices based on students' needs and curriculum expectations.	4.36(94.9%)	4.33(93.3%)	4.35(94.4%)
7. I reflect regularly on my teaching practices to improve student learning.	4.17(89.8%)	4.32(95.0%)	4.22(91.6%)
8. I take the initiative to address challenges I face in the class.	4.22(86.4%)	3.95(75.0%)	4.13(82.6%)
9. I feel empowered to contribute to changes in school practices or curriculum implementation.	4.49(96.6%)	4.28(90.0%)	4.42(94.4%)
10. Working in my school has strengthened my ability to be resourceful.	4.49(96.6%)	4.28(90.0%)	4.42(94.4%)

Structural Factors

Table 12 Teachers' Perceptions of Structural Factors Influencing Teacher Agency and Curriculum Reform by School Location

Statement	Kakuma Mean (%Agree)	Nairobi Mean (%Agree)	Total Mean (%Agree)
1. Education policies in my school support effective teaching and learning.	3.82(73.7%)	4.13(83.3%)	3.93(77.0%)

2. I have access to the institutional support needed to perform effectively as a teacher.	4.08(83.1%)	4.12(85.0%)	4.09(83.7%)
3. The education system allows me to be flexible and responsive to my students' needs.	2.49(20.3%)	2.38(16.7%)	2.46(19.1%)
4. System-level constraints (e.g., policy limitations, inadequate funding) restrict my capacity to implement reforms.	3.53(64.4%)	3.83(70.0%)	3.63(66.3%)
5. I receive timely communication from education authorities regarding policy changes.	4.02(79.7%)	4.03(85.0%)	4.02(81.5%)
6. My school provides clear guidance on implementing curriculum reforms.	4.11(81.4%)	3.90(75.0%)	4.04(79.2%)
7. I have access to school-level committees where teachers can contribute to decision-making.	4.12(89.8%)	4.07(86.7%)	4.10(88.8%)
8. Fair teacher evaluations foster my professional growth.	3.89(74.6%)	3.72(61.7%)	3.83(70.2%)
9. I feel the education policy accommodates the unique needs of refugee learners.	4.10(80.5%)	4.23(88.3%)	4.15(83.1%)
10. The school leadership enforces policies that align with CBC implementation goals	4.10(80.5%)	4.23(88.3%)	4.15(83.1%)

Cultural Factors

Table 13 Teachers' Perceptions of Cultural Factors Influencing Teacher Agency and Curriculum Reform by School Location

Statement	Kakuma Mean (%Agree)	Nairobi Mean (%Agree)	Total Mean (%Agree)
1. There is a strong culture of collaboration among teachers in my school.	3.61(62.7%)	3.30(50.0%)	3.51(58.4%)
2. Community expectations influence how I plan and deliver lessons.	4.10(81.4%)	3.77(73.3%)	3.99(78.7%)
3. I feel respected and valued by the community and education stakeholders.	3.61(66.1%)	3.33(56.7%)	3.52(62.9%)
4. Cultural norms in my school or community influence how I engage with curriculum reforms.	3.24(50.0%)	3.17(46.7%)	3.21(48.9%)
5. My teaching is influenced by cultural expectations of learners and parents.	3.08(39.0%)	2.83(33.3%)	2.99(37.1%)

6. I consult with community members when planning learning activities.	3.63(66.9%)	3.68(68.3%)	3.65(67.4%)
7. Cultural practices are acknowledged and integrated into classroom activities.	3.69(66.9%)	3.97(83.3%)	3.79(72.5%)
8. I am encouraged to use culturally relevant teaching materials.	4.52(94.9%)	4.37(90.0%)	4.47(93.3%)
9. My school treats teachers from different backgrounds equally.	3.97(76.3%)	4.07(78.3%)	4.00(77.0%)
10. Cultural sensitivity is emphasized during school-based trainings.	3.97(76.3%)	4.07(78.3%)	4.00(77.0%)

Material Factors Index

Table 14 Teachers' Perceptions of Material Factors Influencing Teacher Agency and Curriculum Reform by School Location

Statement	Kakuma Mean (%Agree)	Nairobi Mean (%Agree)	Total Mean (%Agree)
1. The physical environment (classroom infrastructure, sanitation, ventilation) supports effective teaching.	3.10(44.1%)	3.43(51.7%)	3.21(46.6%)
2. Learners have access to sufficient textbooks and learning materials, including those with disabilities.	3.81(77.1%)	3.92(75.0%)	3.85(76.4%)
3. The current curriculum and instructional materials are relevant and appropriate for my learners' needs.	3.15(46.6%)	3.37(46.7%)	3.22(46.6%)
4. Supplementary materials (e.g., digital content, reading aids) are available and support curriculum delivery.	3.22(50.0%)	4.12(83.3%)	3.52(61.2%)
5. I have consistent access to electricity or lighting needed for classroom work.	3.02(42.4%)	3.80(68.3%)	3.28(51.1%)
6. My classroom is equipped with furniture suitable for learners' age and needs, including those with disabilities.	2.36(22.0%)	3.62(68.3%)	2.79(37.6%)
7. I have access to printing and/or photocopying facilities for instructional materials.	3.64(65.3%)	3.82(70.0%)	3.70(66.9%)

8. There is a secure place to store learning materials and student work.	3.69(68.6%)	4.20(86.7%)	3.87(74.7%)
9. I receive adequate teaching supplies (e.g., chalk, pens, paper) regularly.	3.47(56.8%)	3.88(76.7%)	3.61(63.5%)
10. Learning spaces are safe and conducive for all learners, including those with disabilities.	3.47(56.8%)	3.88(76.7%)	3.61(63.5%)

Personal Factors Index

Table 15 Teachers' Perceptions of Personal Factors Influencing Teacher Agency and Curriculum Reform by School Location

Statement	Kakuma Mean (%Agree)	Nairobi Mean (%Agree)	Total Mean (%Agree)
1. My beliefs about the purpose of education influence how I teach.	4.18(89.8%)	4.33(91.7%)	4.23(90.4%)
2. I feel professionally skilled and confident in adapting to educational reforms.	3.90(80.5%)	4.18(88.3%)	3.99(83.1%)
3. My relationships with students and colleagues influence my classroom practices.	3.70(67.8%)	3.57(61.7%)	3.66(65.7%)
4. My emotional well-being affects my decisions and teaching actions.	4.23(92.4%)	4.30(95.0%)	4.25(93.3%)
5. I am open to experimenting with new teaching strategies.	4.50(94.9%)	4.50(96.7%)	4.50(95.5%)
6. I feel that my work as a teacher has a meaningful impact.	4.49(94.1%)	4.33(91.7%)	4.44(93.3%)
7. I am motivated to grow professionally, despite challenges.	4.36(94.1%)	4.47(98.3%)	4.39(95.5%)
8. I have a clear sense of purpose in my teaching role.	4.46(94.9%)	4.43(93.3%)	4.45(94.4%)
9. I seek feedback from colleagues or mentors to improve my teaching.	4.03(83.9%)	4.18(83.3%)	4.08(83.7%)
10. I feel emotionally supported by my colleagues and school community.	3.20(52.5%)	3.72(65.0%)	3.38(56.7%)
11. I feel inadequate to teach diverse learners in my class.	3.20(52.5%)	3.72(65.0%)	3.38(56.7%)