African Population and Health Research Center

Education & Youth Empowerment Unit

Implementation of the Competency-Based Curriculum in Kenya: A Critical Evaluation

Research Report - 2025

CONTRIBUTORS

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LIST OF ABBREVIATIONS AND ACRONYMS

CBC	Competency-Based Curriculum
MoE	Ministry of Education
TSC	Teachers Service Commission
KICD	Kenya Institute of Curriculum Development
KNEC	Kenya National Examination Council
ICT	Information Communication Technology
KPSEA	Kenya Primary School Education Assessment
ASAL	Arid and Semi-Arid Land
SDG 4	Sustainable Development Goal 4
SSA	Sub- Saharan Africa
PCK	Pedagogical Content Knowledge
FGDs	Focus Group Discussions
IDIs	In-depth Interviews
KIIs	Key Informant Interviews
QASOs	Quality Assurance Officers
CSOs	Curriculum Support Officers
NACOSTI	National Commission for Science, Technology, and Innovation
SNE	Special Needs Education
IEP	Individualized Education Program

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EXECUTIVE SUMMARY

Kenya's education system has undergone several curriculum reforms since independence, as the government continually emphasizes improving access and quality of education through a relevant curriculum. Since the launch of the Competency-Based Curriculum (CBC) in 2017, the Ministry of Education (MoE) has made efforts to progressively improve its implementation. Despite these efforts, the implementation process has faced challenges, such as inadequate resources and limited teacher training opportunities. Equally, there is limited empirical evidence on what is working or not working well in the implementation of CBC. .

Objectives

This study set out to evaluate the implementation of the Competency-Based Curriculum (CBC) in Kenya. It specifically sought to establish teacher pedagogical practices within the competence-based curriculum in lower primary and middle school education; identify effective practices in CBC implementation in basic education; examine how the implementation of CBC supports equity and inclusive education for vulnerable learners; and find out the extent to which parents are involved in the implementation of the CBC.

Methods

The study used a concurrent mixed-method exploratory research design to examine the implementation of the CBC curriculum in Murang'a, Nairobi, and Samburu counties. It was conducted in 98 schools (Murang'a 38, Nairobi 47, Samburu 13). Data was collected from 913 teachers, 98 institutional heads, and 3,963 grade 6 learners. The other participants included curriculum support officers, quality assurance and standards officers, parents, officials from the Teachers Service Commission (TSC), the Ministry of Education, and the Kenya Institute of Curriculum Development (KICD) at the national and subnational levels. Qualitative data was collected through key informant interviews administered to purposively selected education stakeholders and focus group discussions with parents and learners. Quantitative data was collected through classroom observations, surveys of teachers' pedagogical content knowledge, institutional questionnaires, and student outcomes in the Kenya National Examination Council's (KNEC) CBC assessments.

Summary of Findings

Pedagogical Content Knowledge

- Teachers scored between 50.2% and 69.9% in pedagogical content knowledge assessment.
- ICT integration in teaching and learning was minimal in CBC classrooms.
- Teachers used a gradual release model mainly in English lessons compared to mathematics and science.
- A majority of the observed teachers (91.6%) always or often modeled the concept being taught to the learners and provided them with guided practice and examples.
- Majority of teachers (91.7%) always or often taught from known to unknown.
- Whole class instruction was mainly used by teachers compared to small group and individualized instruction.

Assessment of Learning Outcomes

- Learners achieved a mean score of 56% in English assessment, 44% in Mathematics and 42% in Science.
- Learners in the urban setting (Nairobi) performed better in all learning areas compared to those in the rural (Murangá) and ASAL region (Samburu).
- Learners mean scores were within or above the national mean score for Kenya Primary School Education Assessment (KPSEA) 2023 except for science in Samburu county.

Equity and Inclusivity

- Majority of teachers are generally gender inclusive in most of their classroom practices.
- Teachers made efforts in identifying learners with disabilities and differentiating instruction.
- Teachers identified CBCs' focus on practical activities and nurturing talents as working well in education of learners with disabilities
- The key challenges faced by teachers in supporting learners with disabilities were limited human and time resources, teachers' capacity to handle learners with special needs, and uncooperative parents.

Parents' Involvement, Roles and Perceptions about CBC

- Almost all (98%) of public-school heads, compared to 68% in private schools, reported involving parents in decision-making.
- Students' performance (80.5%), school fees (80.5%), and discipline (48.8%) were the three common aspects private schools communicated to parents.
- Students' performance (84.2%), discipline (79%), and CBC homework support (57.9%) were the common aspects that public schools communicated to parents about.
- Many parents appreciated the CBC's emphasis on practical skills and early talent discovery.
- Parents reported playing roles such as supporting learners with homework and projects, providing learning resources, providing basic needs, and attending school meetings.

Parents' Involvement and Responsibilities

- Almost all (98%) of public-school heads, compared to 68% in private schools, reported involving parents in decision-making on issues such as the development of school infrastructure, the purchase of school facilities, student enrollment, and the hiring of teachers.
- Most common channels of communication to reach parents in private schools were telephone calls (78.05%), bulk SMS messages (63.41%), social media platforms like WhatsApp (60.98%), and newsletters (51.22%).
- Most common channels for public schools included telephone calls (52.63%), newsletters (49.12%), face-to-face (45.61%), and sending students verbally (31.58%).
- The most effective communication channels for reaching parents, according to school heads, were newsletters (31.6%) and telephone calls (36.6%) in public and private schools, respectively.
- Student performance was the main reason for schools communicating with parents in both public and private schools at 82.7%.
- Students' performance (80.5%), school fees (80.5%), and discipline (48.8%) were the three common aspects private schools communicated to parents.
- Students' performance (84.2%), discipline (79%), and CBC homework support (57.9%) were the common aspects that public schools communicated to parents about.
- Most school heads agreed that parents either always or sometimes supported their grade 3 and 6 children with their homework activities.

Conclusions and Policy Recommendations

- Pedagogical content knowledge is an important element in the implementation of CBC. Teachers' professional development on the new CBC content areas, learner-centered approaches, and CBC-appropriate pedagogical approaches is recommended.
- Equity and inclusion, as emphasized in Sustainable Development Goal 4, cannot be ignored in the implementation of CBC. Therefore, teacher preparation and retooling on early identification strategies and inclusive pedagogies is recommended.
- Parental engagement and empowerment is critical in CBC implementation. Enhancing their understanding of CBC and their roles in its implementation is recommended.

1.0 INTRODUCTION

The national curriculum is a critical component in education systems as it articulates the educational goals and aspirations over a given period. It provides the framework and guidelines for the core knowledge in key subject disciplines that students in institutions of basic, secondary, and tertiary education need to learn in order to participate effectively in their environment. The key connection between education systems and the curriculum is that both are essential for transforming the education of a country's citizenry. This has a significant long-term impact on education outcomes, quality of life, and economic status. Additionally, a national curriculum outlines education standards and learning objectives, creating coherence in the content that is offered in schools. Therefore, the curriculum has profound implications for how education is conceptualized, organized, and delivered. Westbrook et al. (2013) delineates four global models that shape curricula: content-driven, process-driven, competency-based, and objective-driven. Each of the models has a specific emphasis that is, either content, processes, competencies or objectives, which provide the focus for the entire curriculum. The ultimate goal of the curriculum is to equip learners with knowledge, competencies, and problem-solving skills to tackle current global challenges and operate effectively in the globalized 21st-century economy (East African Community, 2013).

Many countries in sub-Saharan Africa (SSA) have undergone curriculum reforms since independence and have transitioned between various curriculum models (Altinyenken, 2010; Chisholm & Leyendecker, 2008). Some of the main drivers for reforms in education include the need to break away from the continued legacies of colonialism, as well as dynamic technological, cultural, and political changes, both locally and globally. Moreover, the need for changes in the labor market has necessitated the need for a responsive curriculum addressing a changing world through equipping learners with relevant skills. Despite the attempts to make changes in education, several barriers were identified across several countries during the curriculum reform processes. Among these were a lack of coherence across the curriculum, ineffective pedagogical practices, and an emphasis on high-stakes assessment in both primary and secondary schooling. These have consequently widened the inequality gaps (Dubeck et al., 2012; Glewwe et al., 2009; Piper, 2009).

Education stakeholders have an obligation to establish mechanisms, frameworks, and indicators for effective curriculum implementation as part of standard procedures, towards fostering a foundation for lifelong learning and preparing citizens for civic engagement. Effective curriculum implementation plays a two-fold role of bolstering individual country's self-reliance, economic development, and the attainment of the SDG 4 goal– to ensure equitable and inclusive education for all by 2030 (Haliscelik & Soytas, 2019). Strong monitoring and evaluation frameworks should be embedded into the curriculum structure to generate feedback that stakeholders can consider when addressing emerging challenges, as well as highlight the strong elements of the curriculum. This cyclical process ensures that emerging needs and gaps are identified, and areas of strength are sustained. The process is essential for education stakeholders, including policymakers, administrators, and educators, as lessons learned can be adopted to strengthen overall implementation.

A national curriculum is crucial in determining the essential skills and proficiencies that students need to develop holistically and participate in civic engagement. It is also critical in ensuring that the selected skills and proficiencies prepare learners for a global world and ensure that the skills and expectations are relevant to the local context. Furthermore, a national curriculum streamlines and provides stakeholders with guidance on necessary benchmarks and assessment measures for monitoring progress. Therefore, it is imperative for education stakeholders responsible for curriculum reforms and implementation to be guided by empirical evidence during its implementation process. Relatedly, there is a dearth of evidence on the design, implementation processes, transition, (across grades and levels), and teachers' preparedness for the CBC. These gaps highlight the need for CBC curriculum actors, (implementers, and education stakeholders), to co-create a rich evidence base to understand the scope of CBC implementation - identify areas of strength and areas that need improvement. This study aimed to generate empirical evidence that would be insightful in guiding the ongoing implementation of the curriculum.

Curriculum Reforms in Kenya

Kenya, like many other sub-Saharan African countries, is also undergoing curriculum reforms from the knowledge-based 8-4-4 system to the CBC. The process began in 2016 when the Kenya Institute of Curriculum Development (KICD) conducted a needs assessment of the 8-4-4 curriculum to address the limitations of the education system (KICD, 2016). The outcome of this process was Sessional Paper No. 2 on reforming education and training in Kenya, which recommended the adoption of the CBC, which was officially launched nationwide in 2017 (Thukia, 2025). The CBC emphasizes the acquisition of knowledge and skills in real-life situations, preparing students for the demands of the 21st century and global competitiveness. Moreover, the curriculum aims to integrate pertinent and contemporary issues and service learning into its framework, enabling learners to develop and apply their skills and knowledge. The KICD identified the following seven competencies that learners in the basic education settings need to acquire and compete in the 21st century: communication and collaboration, self-efficacy, critical thinking and problem-solving, creativity and imagination, citizenship, digital literacy, and learning to learn. The CBC curriculum also emphasizes learner-centered pedagogical practices. The CBC focuses on what a learner can do, rather than what they know, and is aligned to meet the needs of the current labor market (Akinrinola, 2021; Ndihokubwayo & Habiyaremye, 2018). Essentially, the success of a competency-based curriculum depends on adequate teacher training, a shift in perspective and attitudes, a shared vision, the adequacy of learning resources, effective teaching practices, teacher familiarity with pedagogical content knowledge (PCK), inclusive practices, and appropriate assessment of learning outcomes.

1.1 Study Rationale

The primary goal of adopting the CBC in Kenya was to institutionalize and mainstream a curriculum that emphasizes the attainment of core competencies, values, and skills (KICD, 2017). The implementation of the CBC curriculum in Kenya is still an ongoing process, and currently, the first cohort of CBC students is in grade 9. In 2023, there was a transition to junior secondary school, which has led to the development of infrastructure (classrooms in schools), national budget allocation, and the development of curriculum materials for teachers, students, and trainees. All these steps are critical in adopting and implementing the new curriculum. While lessons on systemic challenges can be utilized to improve and strengthen the curriculum implementation framework through mitigation measures, lessons on what works well can also be used as a mitigation measure to strengthen areas that require improvement. Despite its perceived importance, there is limited empirical evidence on what is working well in the current CBC implementation processes in Kenya. Education stakeholders, policymakers, and program actors must be guided by empirical evidence as they continue to scale up the implementation of the CBC curriculum. It is in response to this need that this study was conducted to generate evidence on effective implementation. The study highlights the elements that are working well in the core areas of the CBC implementation such as a) teaching practices, b) teacher familiarity with pedagogical content knowledge (PCK), c) inclusivity and equity in the CBC. This evidence is crucial in informing policy on the CBC curriculum to ensure that all learners have access to quality education in basic education institutions.

1.2 Objectives and research questions

The purpose of this study is aligned with the larger context of achieving SDG 4, which aims to provide learners with access to quality education by providing policy-relevant evidence on the effective implementation of the CBC curriculum in Kenya.

Specific objectives:

1. To establish teacher pedagogical practices within the competence-based curriculum in lower primary and middle school education.
2. To identify effective practices in CBC implementation in basic education.
3. To examine how the implementation of CBC curriculum supports equity and inclusive education for vulnerable learners (e.g., girls, learners with special needs,).
4. To find out the extent to which parents are involved in the implementation of CBC.

The specific research questions are:

1. To what extent are teachers knowledgeable about science, language, and mathematics pedagogical and content areas?
2. How do teachers implement the CBC curriculum versus what is stipulated or mandated by the Ministry of Education?
3. Do teachers achieve the desired objectives of the CBC? If yes, how? If no, why?
4. How do the current CBC implementation practices promote equity and inclusivity in education?
5. What is the parents' understanding of their roles and responsibilities, and what are the curriculum developers, MOE, and teachers' expectations of parental involvement?

2.0 METHODOLOGY

2.1 Study Design

The study utilized a concurrent mixed-method exploratory research design to generate evidence on the effective implementation of CBC. The phenomenological research approach, which describes the common meaning of individuals' lived experiences to establish the universal essence, was utilized (Creswell, 2013). An understanding of individuals' common or shared experiences of the phenomenon, CBC implementation, was useful in generating insightful evidence that would enable stakeholders to develop a deeper understanding of what is working well and inform best practices and policy formulation. Data was collected from education stakeholders who have directly experienced CBC implementation phenomenon.

2.2. Sampling

2.2.1 Quantitative Sampling

A Simple Random Sampling technique was used to select teachers and students from a larger pool, ensuring that each participant had an equal chance of being included in the sample. The stratified random sampling method ensured representation across different categories, such as gender, county, and school type (public and private). Teachers were selected based on gender, ensuring an equal balance of male and female participants. Schools were sampled based on their size, with larger schools contributing a greater proportion to the sample. This technique facilitated accurate representation across different counties and school types.

In Samburu County, due to security reasons, the study focused on a sampling frame of 101 primary schools in Samburu Central constituency. From this sampling frame, 12 public primary schools were sampled, and all 6 private primary schools were included to create an oversample of 18, ensuring that the study meets the sampling threshold.

In Nairobi County, out of the 1,039 primary schools (847 private and 192 public), a sample of 60 schools was selected, consisting of 30 private and 30 public schools for data collection. In Murang'a County, out of a total of 633 primary schools (513 public and 120 private), a sample of 48 schools was selected, with 24 schools drawn from each category. The sampling was conducted separately for public and private primary schools and was stratified by sub-county to ensure the closeness of the selected samples, given the county's expansiveness.

2.2.2 Qualitative Sampling

Purposive sampling was used in the qualitative component of the study. The qualitative methods comprised of Focus Group Discussions (FGDs) with students in grade 6, parents of grade 3 and grade 6 students, In-depth Interviews (IDIs) with teachers teaching either Science, Mathematics, and English in Grade 3 and Grade 6. Key Informant Interviews (KIIs) with the sub-County Quality Assurance Officers (QASOs) and Curriculum Support Officers (CSOs) from the three study Counties. Study participants were recruited from the sampled private and public schools, taking into account gender considerations. For instance, where female parents from grade 3 were interviewed, male parents from grade 6 were interviewed in each county. In total, six parent focus group discussions (FGDs) were conducted, drawn from grade 3 and grade 6; six grade 6 student FGDs were completed (one male and one female student FGD from each county). A total of 30 IDIs were conducted, with five teachers sampled from those teaching Literacy, Numeracy, and Environmental Studies in grade 3, and five teachers teaching English, Mathematics, and Science in grade 6, in each County. Eight KIIs were conducted with sub-county CSOs and sub-county QASOs.

2.3 Recruitment and Training

Recruitment of field interviewers took place in February 2024. A total of 32 field interviewers were recruited from the three study Counties (Nairobi, Samburu, and Murang'a). Training of field interviewers was conducted from March 3rd to March 6th, 2024. The trainees were taken through the study objectives, qualitative and quantitative data collection tools, research ethics, child protection guidelines, and data collection skills. Role-play activities were carried out as part of the training with the aim of equipping trainees with relevant field scenarios, to check for consistency, and to ensure data capture quality. Data collection tools were reviewed and adjusted in accordance with feedback from the training discussions to prepare for data collection.

2.4 Data Collection

Data collection for both quantitative and qualitative activities was conducted from March 8 to April 4, 2024, in 98 primary schools. Of these 98 schools, 47 were visited in Nairobi, 13 in Samburu, and 38 in Murang'a County. The Institutional tool was administered to the head teacher or school director/manager. The Pedagogical Content Knowledge (PCK) tool, covering Environmental studies, Literacy, and Numeracy learning areas for grade 3, and Science, Mathematics, and English subjects for grade 6, was a self-administered paper questionnaire for teachers. The Kenya Primary School Education Assessment (KPSEA), for Mathematics, English, and Science subjects, were administered to 65 students in grade 6 per school who were randomly sampled to complete only one of the KPSEA in Mathematics, English, or Science. Notably, in schools where the grade 6 enrolment number of students was below the target of 65 students, all the

students completed the KPSEA for either Mathematics, English, or Science. A total of thirty-six classroom observations were completed in the three Counties where six classroom observations were done in Samburu, eighteen in Nairobi and twelve classroom observations were done in Muranga. Classroom observations were conducted by randomly selecting a Numeracy, Environmental or Literacy lesson for grade 3 and a Mathematics, Science or English lesson for grade 6 in different schools. Data quality controls were conducted through team meetings and daily team debriefing sessions, field supervision teams conducted sit-in interviews and spot checks interviews as a way of ensuring data consistency and quality.

2.5 Data Collection Instruments

The **Institutional questionnaire** was used to assess the quality of CBC implementation, staffing and governance, teaching practices, learner-teacher ratio, average class size, the classroom environment, CBC teacher training for regular and SNE teachers, school facilities, sanitation facilities, and ICT.

The **classroom observation tool** was used to shed light on the pedagogical strategies employed by teachers and how they align with the stipulated implementation guidelines, including instructional strategies, classroom management, availability, and usage of instructional materials. The observations involved scripting what was being observed and also using a checklist of specific criteria for each school visit.

The 2023 Kenya Primary School Education Assessments (KPSEA) standardized tests for English, Science, and Mathematics were used to assess learning outcomes among grade 6 learners. The **Pedagogical Content Knowledge (PCK) questionnaire** was administered to teachers to examine the PCK levels in Science, Language activities, and Mathematics. The PCK tool included the teachers' demographics, the various instructional strategies employed, and the methods used to assess the teaching strategies in their practices.

In-depth interview guides were used to collect data from teachers, while key informant interview guides were used to collect data from CSOs and QASOs. Additionally, **focus group discussion guides** were used to collect data from parents and 6th-grade learners.

2.6 Data Analysis

Data analysis for **quantitative** data involved using STATA version 17 for descriptive statistics, generating outputs such as means, frequencies, and standard deviations. Inferential statistical tests were used to assess the significance of differences across groups, including school types, gender, and county location. These results were presented in the form of tables and graphs to enhance clarity and visualization. From the analysis, we obtained the overall characteristics of the schools, for instance, the number of schools in the study disaggregated by type of school and the county. Other variables of interest included the number of learners in a school, the number of teachers in a school, and characteristics of the schools. The classroom observation was analyzed using frequencies, for example, the number of times the teacher applied certain strategies during the lesson. For the KPSEA data, STATA software was used to mark against the rubric prepared by the teachers, and the mean scores were calculated. This gave the score for each student. The mean score was calculated by gender, type of school, and county. The scores were compared to the national mean score to evaluate the student's performance. The PCK scripts were marked against a rubric to measure the level of knowledge the teachers have on different teaching strategies.

The **qualitative** data were tape-recorded and transcribed verbatim into text. To confirm that the transcribed data was accurate, the research team verified the transcriptions by comparing them to audio files. The study team mostly developed important themes of interest deductively throughout the coding process based on the questions in the qualitative guides and some inductively based on emerging issues that surfaced during analysis (Azungah, 2018). NVivo software was then used to organize and import the themes. Thematic analysis was employed to identify broad perspectives on a phenomenon of interest by gathering similar opinions from different categories of respondents (Braun & Clarke, 2012). The key findings were then summarized in a coding report, which categorized the qualitative data into relevant topics of interest. By triangulating several data sets from focus group discussions, in-depth interviews, and key informant interviews, the qualitative data's credibility and dependability were also guaranteed.

2.7. Ethical Considerations

Ethics and scientific review of the study protocol was undertaken, and appropriate research permits were obtained. These included; a review by APHRC scientific review committee, ethics approval from AMREF's Ethics and Scientific Review Committee - ESRC P1545/2023, research permit from the National Commission for Science, Technology, and Innovation (NACOSTI/P/23/31166), and approval by the Ministry of Education (MoE) for school entry during data collection.

Information about the study was explained to the respondents and written informed consent and/or assent by minors was sought. The principle of anonymity was applied and participation was voluntary, no coercion was used. In addition, the risks and benefits of the study were described to the study participants. Moreover, all interviews were conducted privately, and all data sets were anonymized to protect the identity of respondents. All these ethical requirements were emphasized during the training of field staff.

3.0 RESULTS

3.1 Introduction

The study aimed to determine the extent to which teachers are knowledgeable about science, language, and mathematics content areas; investigate how teachers implement the CBC curriculum in Kenya. This was analysed in the light of the stipulations outlined by the Ministry of Education; The study assessed whether teachers achieve the desired objectives of the CBC. In addition, the study aimed to understand how current CBC implementation practices promote equity and inclusivity in education. Finally, the study sought to investigate parents' understanding of their roles and responsibilities, and the expectations of parental involvement by curriculum developers, the Ministry of Education (MoE), and teachers.

3.2. Study characteristics

Schools Characteristics

This section focuses on the distribution of schools by county, and type of school that took part in the study. The study was conducted in 98 schools from three counties in Kenya. That is, 47 schools in Nairobi, 38 schools in Murang'a, and 13 schools in Samburu counties, representing urban, rural, and arid, and semi-arid areas respectively. A majority of the schools in all the three Counties were public, that is, 57.5% in Nairobi, 57.8% in Murang'a, and 61.5% in Samburu (see figure 1).

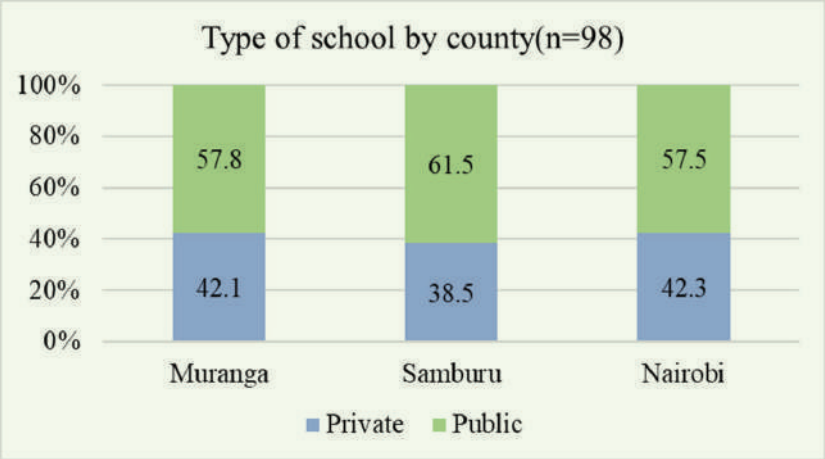

Figure 1: Distribution of schools by county and type

Learners Characteristics

The total number of learners enrolled in the 98 schools was 41,384. As shown in Figure 2, 20,811 (50.3%) were female and 20,573 (49.7%) were male. Further categorization by type of schools showed that 80.4% (33,263) and 19.6% (8,121) of the learners were enrolled in public and private schools, respectively.

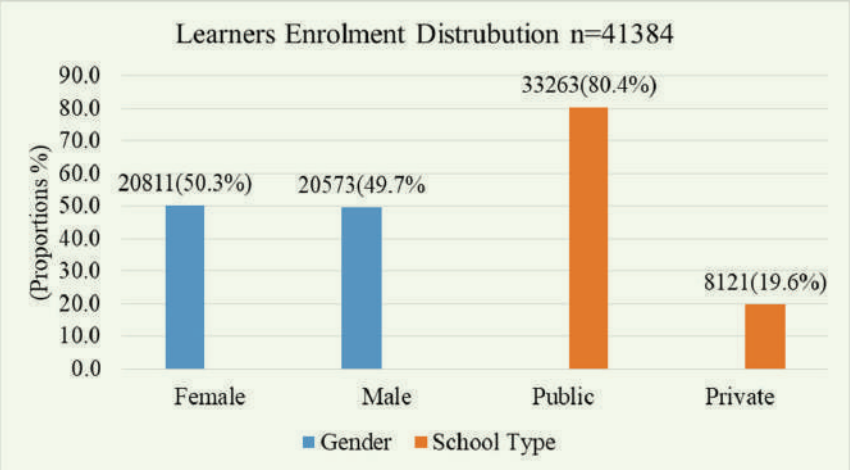

Figure 2: Learners' school enrollment

Enrollment of Learners with Special Needs

Out of the 98 schools visited, the majority (67.3%) reported no enrollment of learners with special needs. Only 32 schools (32.7%) had enrolled learners with special needs, which represented just 1.3% of the 41,384 total learners. The distribution of the learners with special needs by county was: (67.2%) 354 learners in Nairobi, (22.0%) 116 in Murang'a, and (10.8%) 57 in Samburu Counties (see figure 3). Results further show that 96.4% of learners with special needs and disabilities were enrolled in public schools.

Availability of Learners With Special Needs in Schools

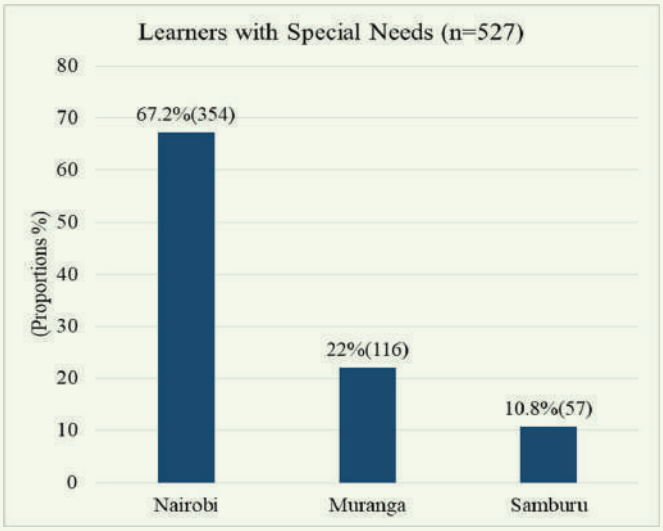

Figure 3: Learners with special needs per county

Reasons for Not Enrolling Learners with SNE

The key reasons captured by schools heads for not enrolling learners with SNE and disability were that there were no requests received by schools from the community (53.9%), lack of trained teachers to handle learners with SNE (36.2%), lack of facilities for learners with special needs (31.5%), lack of adequate finances to offer facilities for special needs (23.2%), and availability of SNE schools nearby (22.3%), see figure 4.

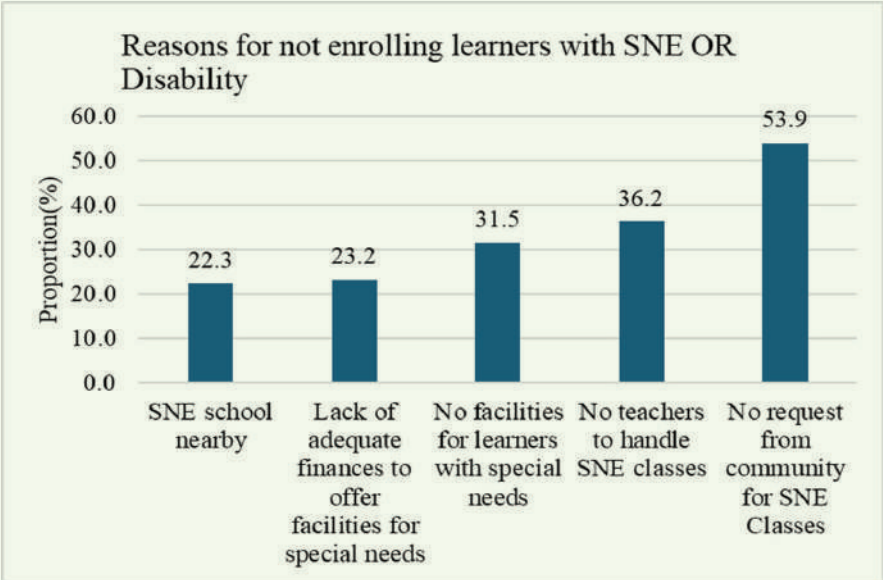

Figure 4: Reasons for not enrolling learners with SNE or Disability

Analysis of the enrollment of the type of special needs and disability (as shown in figure 5) revealed that the majority of the learners enrolled in the study schools were reported to have mental disability (49.9%), followed by hearing impairment (25.7%) and physical disability (10.2%).

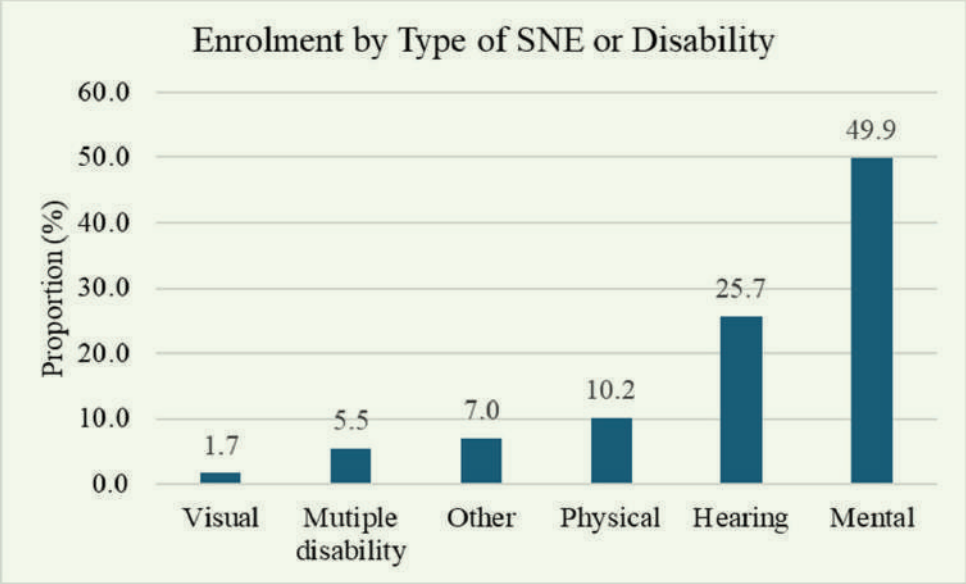

Figure 5: Enrolment by type of SNE or Disability

Disability Mainstreaming Within Schools

For the schools that reported enrolling learners with special needs and disabilities, the majority (71.1%) of schools primarily accommodated the learners by integrating them into the usual learning activities within the school. In addition, 47.4% of schools also reported accommodating learners with SNE and disabilities by having human and physical facilities, such as SNE teachers and ramps for ease of mobility for learners with physical disabilities, while 29% (mainly public schools) reported having separate classes for learners with SNE (see table 1)

Table 1: Disability mainstreaming within school setting

How are learners with special needs accommodated in this school	Public %(n)	Private %(n)	Total
Mainstreamed/integrated	69%(20)	77.8%(7)	71.1%(27)
Different classes/units	37.9%(11)	0%(0)	29%(11)
Classes have sign language interpreters	3.5%%(1)	0%(0)	2.6%(1)
There are ramps for use by learners with physical disabilities	24.1%(7)	11.1%(1)	47.4%(18)
There are braille resources for learners with visual impairment	3.5%(1)	0%(0)	2.6%(1)
Special education teachers are available in school	51.7%(15)	33.3%(3)	47.4%(18)
Special education caregivers	6.90%(2)	11.1%(1)	7.9%(3)

Teacher Characteristics

This section covers the teachers' attributes, such as academic qualifications and distribution by gender and type of school. There were a total of 1,768 teachers in the 98 schools, comprising 1,133 teachers in public schools and 635 in private schools. The analysis revealed that more female teachers (66.5%) were in public schools compared to male teachers (59.6%), whereas in contrast, there was a slight difference in private schools, with a higher proportion of male teachers (40.4%) compared to 33.5% for female teachers (see figure 6).

Results on the teachers' highest level of teacher education showed that about 47.5% held a certificate in teacher training, 27.1% held diploma qualifications, 22.3% held a bachelor's degree, 1.7% held a master's degree, and 1.4% were untrained.

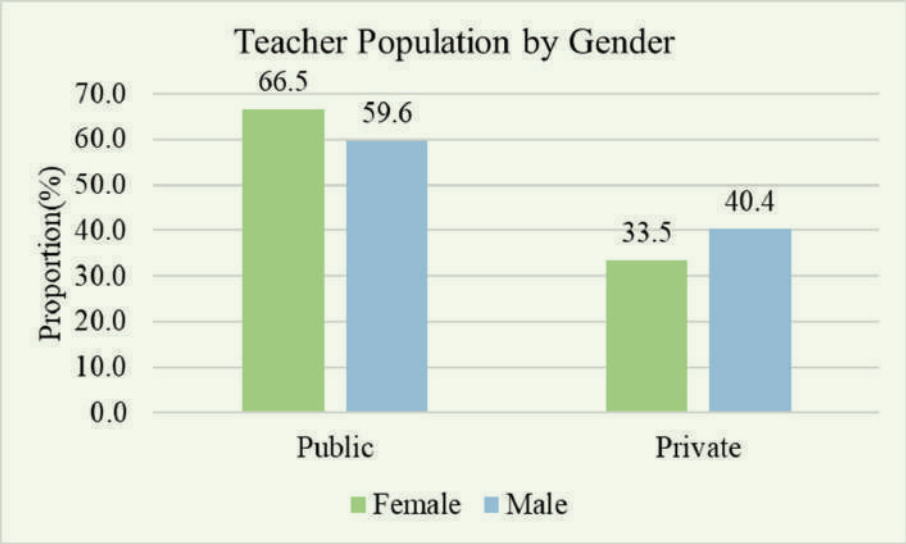

Figure 6: Teachers' population by gender

Table 2: Summary of data collected by type of school

Type of School	Institutional Questionnaire	Classroom Observation	KPSEA	PCK
Public	57	22	2880	546
Private	41	15	1083	367

Table 3: Teachers who participated in PCK survey per gender, County, subject and level

PCK	Numeracy (n)		Literacy(n)		Science(n)	
	Lower	Upper	Lower	Upper	lower	Upper
Gender						
Female	123	78	134	129	97	49
Male	16	117	6	57	16	91
Type of school						
Public	53	133	88	126	63	83
Private	86	62	52	60	50	57
County						
Nairobi	79	110	77	108	61	80
Samburu	15	22	17	20	15	19
Muranga	45	63	46	58	37	41

3.2 Teachers Pedagogical Content Knowledge

A knowledge assessment survey was conducted to highlight teachers' pedagogical content knowledge in the target subject areas of Mathematics, English, and Science. This was in response to the research question on the extent to which teachers are knowledgeable about science, language, and mathematics content areas. Teachers in both lower primary and upper primary school levels responded to the PCK survey. The set of question items assessed both the content knowledge and pedagogical knowledge of the teachers in the three learning areas. The survey results are as follows.

Teachers Overall Scores

On average, teachers scored between 50.2% and 69.9%, with the highest being English in lower primary and the lowest being Science in upper primary. English recorded the highest overall performance on PCK with an average score of 64.5% in upper and 69.9% in lower primary. See figures 7 and 8.

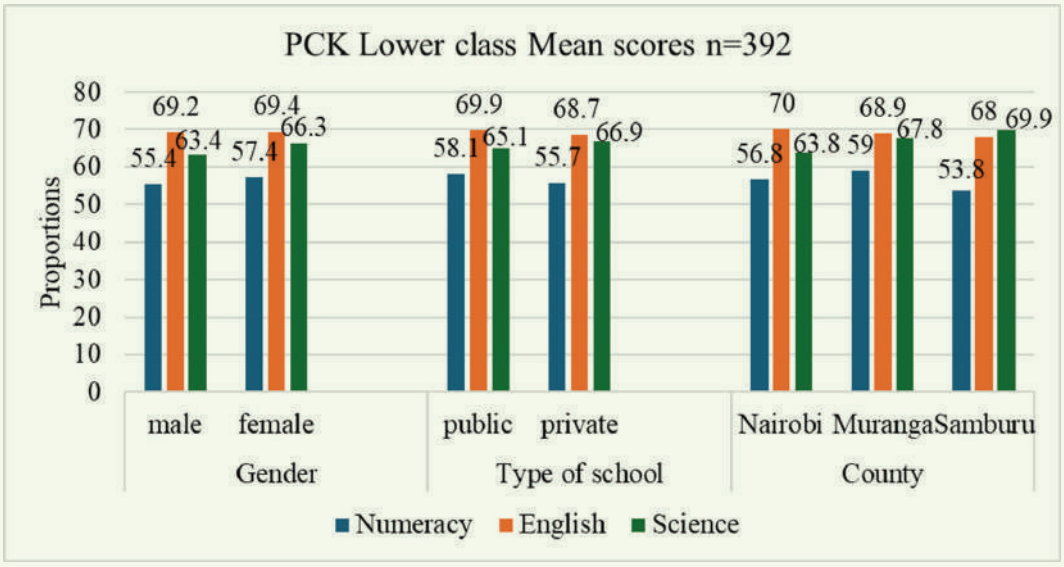

Figure 7: Lower class teacher knowledge Assessment scores per gender, type of school, and county

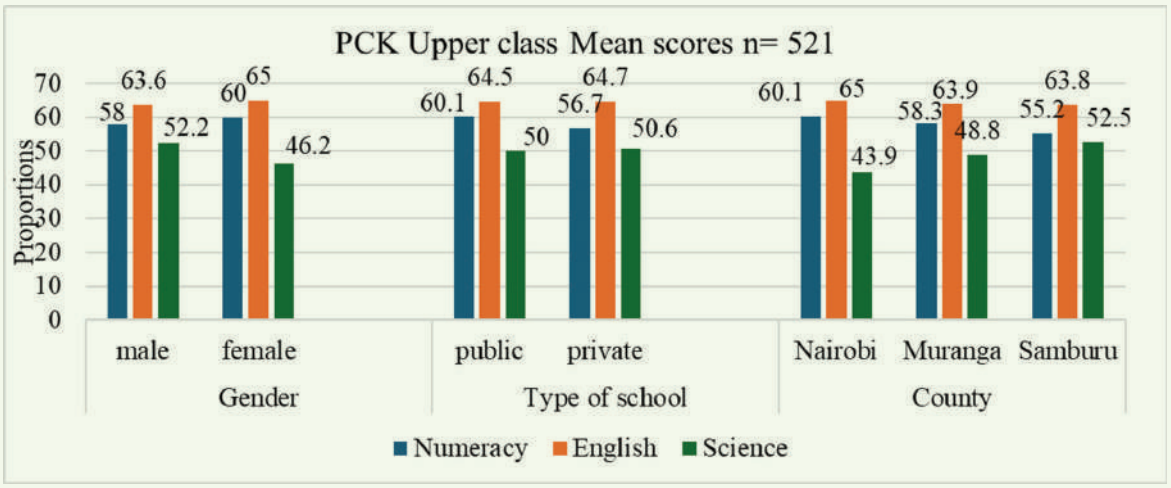

Figure 8: Upper class teacher knowledge assessment scores per gender, type of school, and county

Analysis per Subject:

Mathematics

The average pedagogical content knowledge score for teachers in the lower primary was 57.1%, while that of the upper primary was 59.0%. There was no statistical difference in the scores by gender and school type for the lower primary. However, in the upper primary, there was a slight difference in scores by type of school. Public schools did better, with a mean score of 60.1%, while private schools had a mean score of 56.7%.

Science

The teachers' pedagogical content knowledge mean score for science was 65.8% in lower primary and 50.2% in upper primary school. Comparisons between performance per county, per school category, and by gender showed no significant difference for lower primary. However, in the upper primary, there was a significant difference between male and female performance at 52.2% for males and 46.2% for females, with a p-value of p= 0.0403.

English

On average, teachers' pedagogical content knowledge mean score was over 60% in both lower and upper primary schools, with a mean score of 69.4% for lower primary and 64.5% for upper primary. There was no significant difference in the performance of teachers across the three counties, per school category, or by gender, in both lower and upper primary for English.

Teaching Strategies Used

The most frequently used teaching strategies were collaborative learning, cooperative learning, inquiry-based learning, problem-based learning, and blended learning. On the other hand, field trips, project work, and e-learning were rarely used.

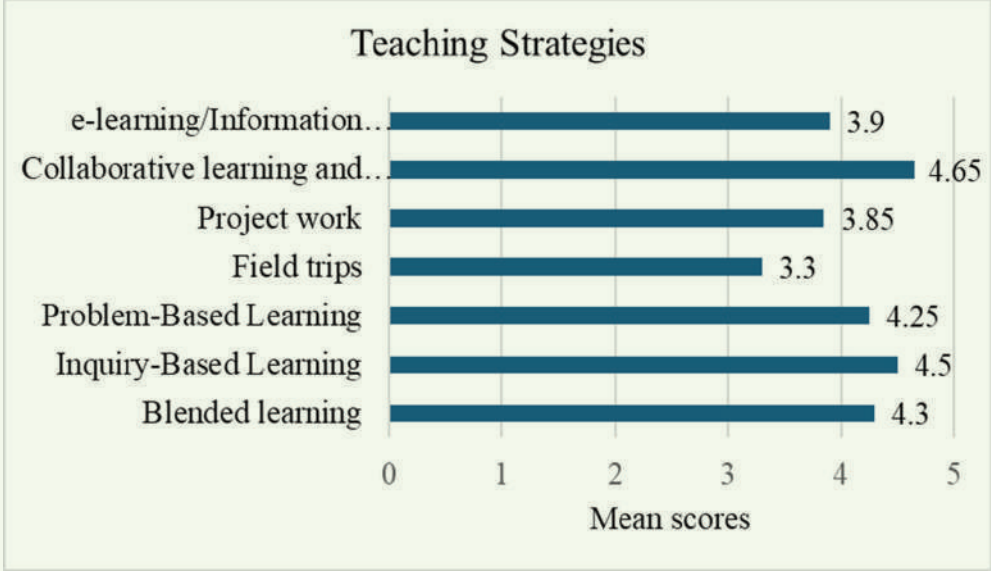

Figure 9: Teaching strategies used across learning areas in lower and upper primary levels

Assessment Tools Used

Overall, teachers' self-reported findings suggest that they utilize various assessment tools. Observations, oral questions, and written tests were the most frequently used assessment methods. This was followed by rubrics, portfolio assessment, checklists, aural questions, learner profiles, and rating scales as shown in figure 10. On the other hand, projects, journals, and anecdotal records were rarely used.

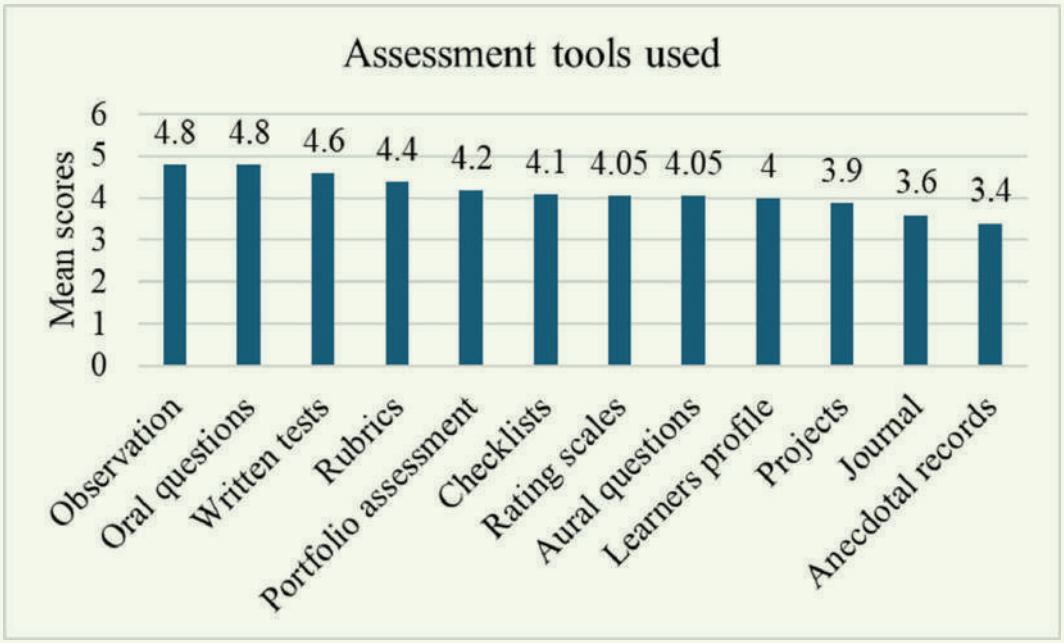

Figure 10: Assessment tools used by teachers in both upper and lower primary

Most teachers agreed that they frequently mainstreamed values in their teaching and learning activities, with a score of between 4.5 and 4.9, where 4 represents 'often' and 5 represents 'most often' in Figure 11. The values mainstreamed included love, responsibility, respect, unity, peace, patriotism, social justice, and integrity.

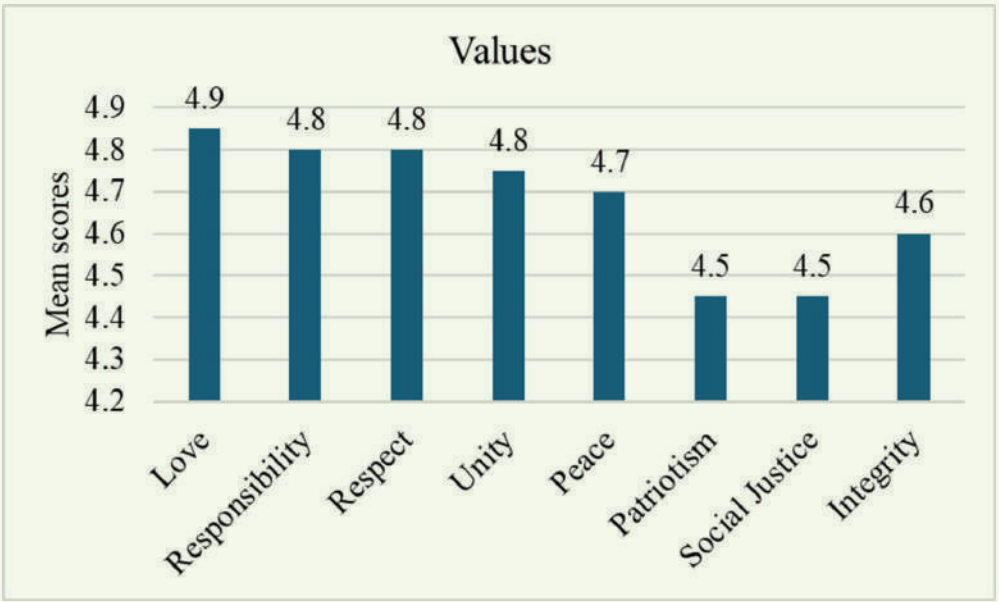

Figure 11: Frequency of mainstreaming values in both upper and lower primary

Pertinent and Contemporary Issues Included in the Lessons

Teachers agreed that they frequently incorporated Pertinent and Contemporary Issues (PCIs) into their lessons, such as health issues, learner support programs, parental empowerment and engagement, life skills, human sexuality, and citizenship education. The frequency score for these PCIs ranged from 4.2 to 4.5, where 4 represented 'often' and 5 represented 'most often', as shown in Figure 12.

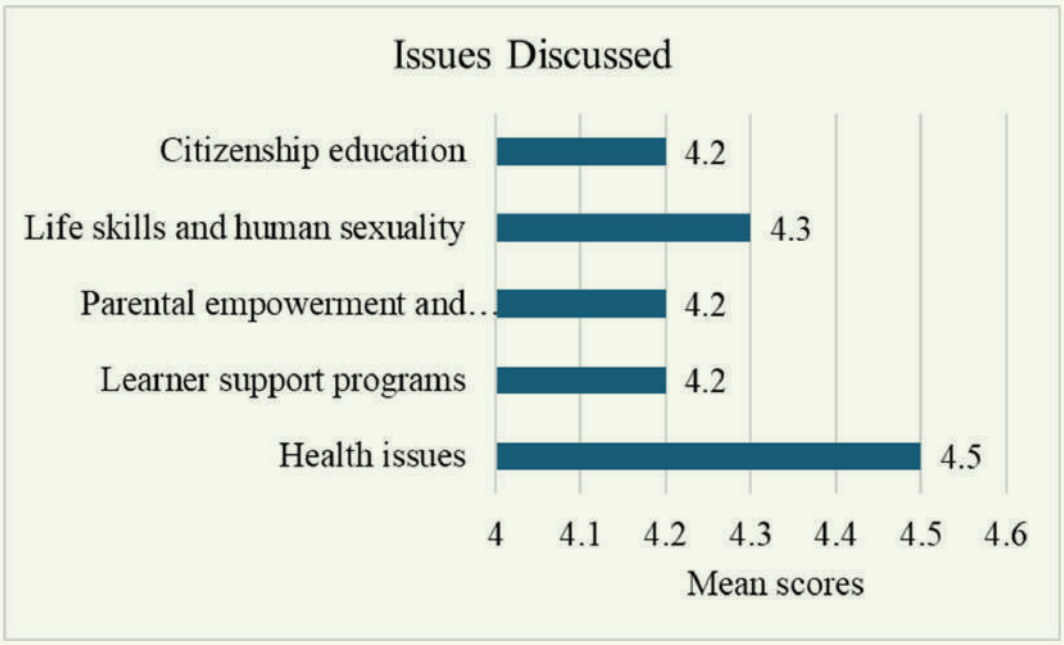

Figure 12: Frequency of incorporating pertinent and contemporary issues within a lesson in upper and lower primary

3.3 Implementation of Competency Based Curriculum

Classroom Observation

The research team conducted classroom observations in select schools in Nairobi, Murangá, and Samburu counties in Kenya. The purpose of the classroom observation was to provide insights into the actual implementation of CBC at the classroom level in Science, Mathematics, and English. Classroom observations were conducted in both Grade 3 and Grade 6. Table 4 shows the number of classroom observations conducted per subject, in each county, while detailing the school category and teachers observed by gender.

Table 4: Classroom observations per subject, county, by gender, school category

Classroom Observation Tool	Numeracy	Literacy	Science
	n	n	n
Gender			
Female	11	11	6
Male	1	2	6
Type of school			
Public	7	8	8
Private	5	5	4
County			
Nairobi	6	6	6
Samburu	2	2	2
Muranga	4	5	4

Teacher Characteristics

The majority of the teachers observed were those with a college certificate, followed by those with diplomas. On average, 50.9% of the teachers had a college certificate, while 29.5% had a college diploma.

Implementation of Competency-Based Curriculum

Various aspects of the implementation of CBC were observed. The results are described in the sections that follow.

ICT Integration in Teaching and Learning

Digital literacy is a core competency in the competency-based curriculum. As such, teachers are required to utilize digital devices in their learning sessions and provide opportunities for learners to interact with and manipulate them. Findings from this study show that there was minimal utilization and integration of ICT in teaching and learning in the observed lessons across the three learning areas. 91.7% of teachers observed in mathematics never used ICT. A similar trend was seen in science and English lessons, where 83.3% and 69.2% of teachers did not integrate ICT into their lessons, see table 5.

Table 5: ICT integration in Math, English and science learning areas

Strategy	Subjects	Never	Sometimes	Often	Always	N=37
Integration of ICT in Teaching	Math	91.7%	0%	0%	8.3%	12
	Science	83.3%	8.3%	8.3%	0%	12
	English	69.2%	7.7%	7.7%	15.4%	13

Learner Feedback

Providing formative feedback to learners is a crucial aspect of the competency-based curriculum. Specifically, constructive feedback motivates learners, builds their confidence, and enhances their self-efficacy. Findings reveal that teachers provide constructive feedback to the learners. 75% of teachers observed in mathematics, 58.3% in science, and 53.8% in English always gave constructive feedback to their learners during the lesson development.

Table 6: Teacher feedback during lessons development

	Subjects	Never	Sometimes	Often	Always	N=37
Provide Feedback	Math	8.3%	8.3%	8.3%	75.0%	12
	Science	0.0%	16.7%	25.0%	58.3%	12
	English	0.0%	7.7%	38.5%	53.8%	13

Additionally, during the feedback process, teachers primarily repeated the learners' responses and elaborated on them. This was reported at 83.3% in Mathematics, 66.7% in Science, and 76.9% in English.

Use of Gradual Release Model

Instructional scaffolding, utilizing a gradual release model, follows the I do, We do, and You do sequence during activity modeling, and is an evidence-based approach adopted in the CBC curriculum implementation. The study findings show that the majority of teachers used the gradual release model in their instruction across the three learning areas during the lesson development. Specifically, teachers who used the model either "often or always" within the observed lesson were 75% in Mathematics, 58.3% in Science, and 92.3% in English.

Table 7: Findings on the use of gradual release model across learning areas in lesson development

	Subjects	Never	Sometimes	Often	Always	N=37
Gradual Release Model	Math	8.3%	16.7%	25.0%	50.0%	12
	Science	16.7%	25.0%	8.3%	50.0%	12
	English	7.7%	0.0%	53.8%	38.5%	13

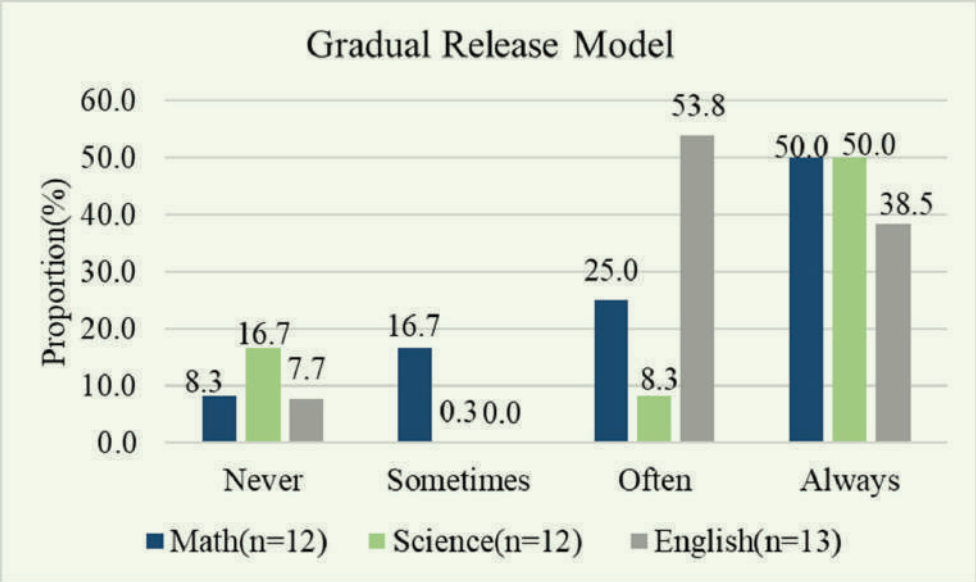

Figure 13: Graphical representation of gradual release model findings across learning areas in lesson development

Instructional Strategies

The Competency-based curriculum focuses on developing various core competencies in learners and acquiring hands-on skills. The study aimed to determine whether teachers apply a set of recommended instructional strategies and the frequency of each within a sample of observed lessons.

Table 8: Teacher application of recommended instructional strategies in delivering CBC

Instructional Strategies	Subjects	Never	Sometimes	Often	Always	N=37
The Teacher provides clear learning statements/instructions for the learning activities	Math	0%	0%	33.3%	66.7%	12
	Science	0%	16.7%	16.7%	66.7%	12
	English	0%	7.7%	23.10%	69.2%	13
The Teacher introduces the content being taught and links it to the previous lesson:	Math	0%	8.3%	16.7%	75%	12
	Science	8.3%	0%	25%	66.7%	12
	English	15.4%	0%	23.1%	61.5%	13
Models the concept and provides learners with guided practice and examples:	Math	0%	0%	41.7%	58.3%	12
	Science	0%	25%	41.7%	25%	12
	English	0%	7.70%	69.20%	23.10%	13
The teacher teaches from the known to the unknown	Math	0%	8.30%	50%	41.7%	12
	Science	0%	0%	16.7%	75%	12
	English	7.0%	0%	38.5%	53.8%	13

Instructional Strategies	Subjects	Never	Sometimes	Often	Always	N=37
Content Sequencing	Math	0.0%	0%	25.0%	75.0%	12
	Science	0.0%	0%	16.7%	83.3%	12
	English	0.0%	0%	30.8%	69.2%	13
Language Use	Math	0%	0%	0%	100%	12
	Science	0%	0.0%	8.3%	91.7%	12
	English	0%	0%	7.70%	92.30%	13
Learner Participation	Math	0%	0%	16.70%	83.30%	12
	Science	0%	8.3%	8.3%	83.3%	12
	English	0%	0%	23.10%	76.9%	13
Small Group	Math	15.4%	0%	30.8%	53.8%	12
	Science	41.7	8.3%	8.3%	41.7%	12
	English	15.4%	0%	30.8%	53.8%	13
Whole Group	Math	0%	0%	0%	100%	12
	Science	0%	0%	16.7%	83.3%	12
	English	0%	0%	0%	100%	13

Teachers provide clear learning statements/instructions for the learning activities: the majority of the teachers were found to give clear instructions to learners in most instances within the lesson. For instance, of the observed lessons, 66.7% of teachers in mathematics, 66.7% in science, and 69.2% in English provided clear learning instructions to the learners.

Teacher introduces content being taught and links it to the previous lesson: study findings show that 75% of teachers in math, 66.7% in science, and 61.5% in English introduced the content being taught and linked it to the previous lesson.

Models the concept and provides learners with guided practice and examples: The majority of the observed teachers modeled the concept being taught to the learners and provided them with guided practice and examples. Slightly more than half of the teachers did it more frequently within the lesson, at 58.3%, while 33.3% did it often.

Teaches from known to unknown: Observations revealed that the majority of teachers practice teaching from known to unknown. For instance, in the observed mathematics lessons, 41.7% of teachers always practiced teaching from known to unknown, while 50% often taught from known to unknown.

Content sequencing, language use, and learner participation

The other critical instructional strategies observed were whether the teacher sequences content logically, uses simple and clear language, and whether they provide opportunities for learners to respond. The study findings show a positive trend across the three learning areas. For instance, in the observed science lessons, 83.3% of teachers usually sequence content logically, 91.7% use simple and clear language, and 83.3% of teachers usually provide opportunities for learners to respond.

Small-group vs. whole-group instruction: Learner participation in learning activities was observed, and the manner of groupings was noted. Whole-class instruction was used more often compared to small-group instruction and working in pairs. For instance, in the observed science lessons, 83.3% of teachers frequently used whole-class instruction, compared to 41.7% who frequently utilized small-group instruction (see figure 14). However, learners' individual tasks and working in pairs were not frequently used by teachers.

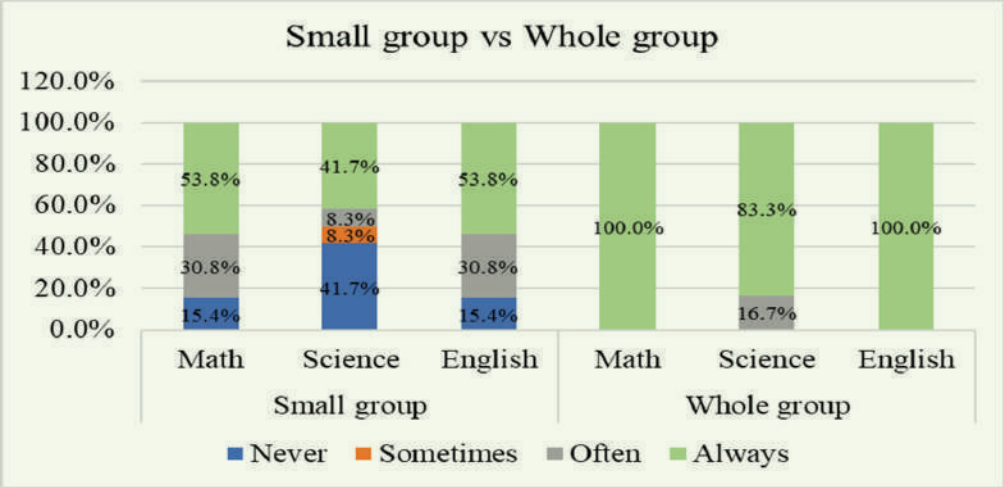

Figure 14: Learner participation in learning activities

Learner Engagement, Motivation, and Classroom Management

Teachers made a good effort to engage learners from all parts of the classroom. For instance, in the observed English lesson, 76.9% of the teachers frequently engaged learners from all parts of the classroom. However, in the observed mathematics lessons, only 41.7% frequently engaged learners from all parts of the classroom.

On the other hand, the majority of the teachers across the observed learning areas did not encourage learners who had not spoken to participate. For instance, in the observed mathematics lessons, only 8.3% of teachers frequently encouraged the learners to participate, while 66.7% did not encourage silent learners to participate.

In most of the observed lessons, teachers modeled the expected behavior, reinforced positive behavior, and discouraged classroom misconduct. For instance, in the observed science lessons, 91.7% of teachers' modeled positive behavior, 83.3% of learners received praise for good behavior, 91.7% of learners were recognized for correct responses, and 75% of learners were disciplined for classroom misconduct.

Availability and Usage of Instructional Materials

To build targeted competencies in learners, the availability and usage of instructional materials during the learning experiences is a key component within the competency-based curriculum. The study aimed to determine whether teachers had access to the most basic instructional materials and whether they utilized them during lessons. The findings revealed that the majority of teachers had instructional materials, including teachers' guides, schemes of work, lesson plans, learner textbooks, learner portfolios, learner assessment records, teacher-made resources, learner-made resources, and learning resources such as pencils, pens, and notebooks. For instance, in the observed mathematics lessons, 75% of the teachers had lesson guides, 100% had schemes of work, 81.8% had lesson plans, 54.5% had learner portfolios, 90.9% had learner assessment records, and 100% had learner learning resources such as pens, pencils, and notebooks.

Regarding the use of instructional materials within the lesson, the study findings indicate that all available learner resources (textbooks, pens, pencils, and notebooks) were utilized. Moreover, over 70% of teachers used the teachers' guides, schemes of work, and lesson guides. However, the learner portfolios were not used in all the observed lessons, and only 50% of the learner assessment records were used (see figure 15).

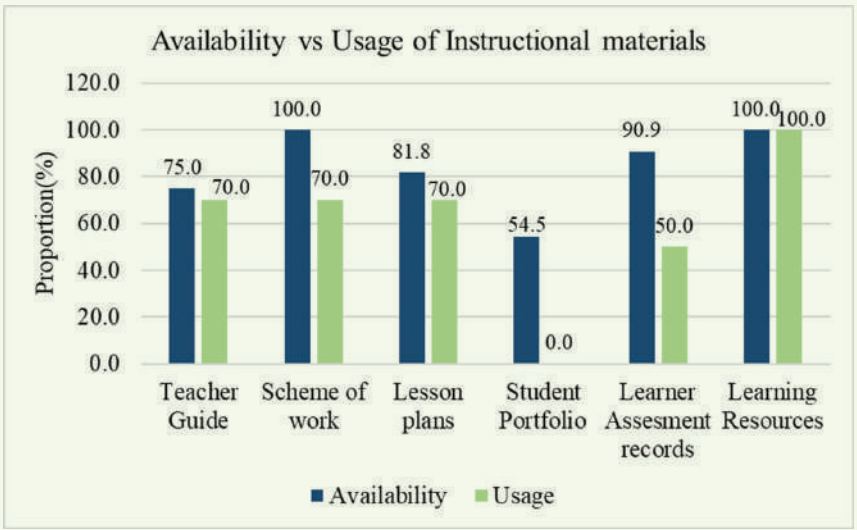

Figure 15: Availability and use of instructional materials for Math learning area

3.4 Achievement of Learning outcomes

Learner KPSEA

The 2023 Kenya Primary School Education Assessment (KPSEA) was administered to grade six learners. This was in response to the research question of whether teachers achieve the desired objectives of the CBC or not. This was also aimed at giving insights into how teachers' pedagogical content knowledge and competency-based classroom practices relate to learner outcomes.

A total of 3,963 learners participated in the assessment from public and private schools across the three counties (Nairobi, Murang'a, and Samburu): 1,237 took Science, 1,425 participated in Numeracy, and 1,301 took the English assessment. See details in table 9.

Table 9: Administration of KPSEA across Nairobi, Murang'a and Samburu counties

KPSEA	Numeracy	Literacy	Science
	n	n	n
Gender			
Female	743	611	595
Male	682	690	642
Type of school			
Public	962	947	971
Private	463	354	266
County			
Nairobi	989	796	787
Samburu	118	100	125
Muranga	318	405	325

The results in table 10 show that learners performed better in English with a mean score of 56% compared to Mathematics (44%) and Science (42%). Although boys performed slightly better than girls across the three learning areas, the difference was not statistically significant. Private schools performed better than public schools across the three learning areas: English (56%), Mathematics (48%), and Science (48%), compared to public schools: English (55%), Mathematics (42%), and Science (41%). In terms of the Counties, Nairobi performed better in all the subject areas.

Numeracy Assessment

The results suggested that, on average, learners from private schools performed better in the numeracy assessment than learners from public schools, with a mean score of 47.7% and 42.3%, respectively (see table 10). The test results indicated a statistically significant difference between the two groups ($Z = 5.827$, $P < 0.05$). Additionally, the results revealed a statistically significant difference in performance between genders. Female learners scored an average of 43%, while male learners scored 45% (see Table 11). When analyzing the results by county, statistical differences were also observed. Learners in Nairobi had a mean score of 45%, those in Murang'a scored 42%, and learners in Samburu scored 42%, highlighting variations in numeracy performance across different regions.

Literacy Assessment

The KPSEA assessment aimed to evaluate learners' proficiency in English language skills, with content aligned to the official primary school curriculum in Kenya. Results showed that private schools had a mean score of 56.13% while public schools had a mean score of 54.9% (see Table 10). The results of this analysis revealed that performance in English did not differ significantly between public and private schools ($Z= -1.265$, $p > 0.05$). By county, the mean scores were statistically different between Nairobi, Muranga, and Samburu. Nairobi had a higher mean score of 58%, followed by Samburu at 53%, while Murang'a had a mean score of 49% in English as shown in Table 12.

Science

The findings revealed that learners from private schools had a mean score of 48% while those in public schools had a mean score of 41%. The mean score differs statistically between private and public schools, with private schools having higher scores than public schools. Furthermore, we analyzed the results by gender, where males scored 43% and females scored 42%. There was no statistically significant difference in the mean score by gender compared to the national score. In the analysis by County; the scores were as follows, Nairobi (45%), Muranga (43%), and Samburu (29%), with a statistically significant difference in the mean scores, with all the subjects recording above the national score (41.2%) except Science in Samburu posted a score below the National score.

Comparison to the National Score

We also compared the mean scores by subject and by type of school for all learning areas. The English, Science, and mathematics tests administered were within or above the national mean score for each subject. In addition, mean scores by county for the three learning areas were within or above the national mean score, except for Samburu, which recorded a score below the national mean in Science.

Tables 3.10, 3.11, and 3.12 show the percentage mean scores by type of school, gender, and county.

Table 10: Percentage Mean Scores by type of school (KPSEA)

	Private	Public	Overall	National Mean Score
	Mean (SD)	Mean (SD)	Mean (SD)	
Literacy (English)	54.91(19.3)	56.13(19.1)	56.(19)	49.96
Numeracy (Math)	47.78(16.4)*	42.3(15.3)*	44(16)	42.47
Science	48(16)*	41(14)*	42(15)	41.19

*Note. * Significant at 5% level, **Significant at 1% level*

Table 11: Percentage Mean Scores by Gender (KPSEA)

	Female	Male	Overall	National Mean Score
	Mean (SD)	Mean (SD)	Mean (SD)	
Literacy (English)	57(19)	55(20)	56(19)	49.96
Numeracy (Math)	43(16)*	45(16) *	44(16) *	42.47
Science	42(15)	43(15)	42(15)	41.19

*Note. * Significant at 5% level, **Significant at 1% level*

Table 12: Percentage Mean Scores by county (KPSEA)

	Female	Male	Overall	National Mean Score
	Mean (SD)	Mean (SD)	Mean (SD)	
Literacy (English)	57(19)	55(20)	56(19)	49.96
Numeracy (Math)	43(16)*	45(16) *	44(16) *	42.47
Science	42(15)	43(15)	42(15)	41.19

*Note. * Significant at 5% level, **Significant at 1% level*

3.5 Equity and Inclusivity in the Implementation of CBC

Gender Equitable Practices

Teachers from both public and private schools were observed to determine whether they practiced gender-equal practices during classroom instruction in Math, English, and Science lessons. The frequency of use was recorded for the equitable practices observed, ranging from always, often, sometimes, rarely, to never. Some of the gender equitable practices observed were: whether teachers call on both girls and boys equally, whether both girls and boys are actively engaged in class projects, whether teacher avoids using gender stereotypes that assign or presume gender roles, whether teachers integrate (rather than divides) learners by gender during activities, whether teacher assigns girls and boys equally to all classroom 'chores', and whether teachers give boys and girls an equal amount of assistance and feedback.

The findings showed that the majority of teachers always or often practiced the observed indicators of equitable gender practices. This finding suggests that the majority of teachers are generally gender-inclusive in most of their classroom practices. In addition, no significant differences were noted between gender-equitable practices by type of school, nor between public and private schools. Table 13.0 presents several gender-equitable practices observed, along with the rating of how often the teacher practiced each specific practice.

Table 13: Gender-equitable practices and frequency of practice by teachers

GENDER EQUITABLE	Subjects	(Never)	(Sometimes)	(Often)	(Always)	n=37
Teacher calls on both boys and girls equally	Math	0.0%	8.3%	33.3%	58.3%	12
	Science	0.0%	0.0%	58.3%	41.7%	12
	English	0.0%	0.0%	30.8%	69.2%	13
Teacher ensures that both girls and boys are actively engaged in class project	Math	0.0%	0.0%	58.3%	41.7%	12
	Science	0.0%	0.0%	58.3%	41.7%	12
	English	0.0%	0.0%	15.4%	84.6%	13
Teacher avoids using gender stereotypes that assign or presume gender roles	Math	0.0%	0.0%	33.3%	66.7%	12
	Science	0.0%	0.0%	16.7%	75.0%	12
	English	0.0%	0.0%	15.4%	84.6%	13
Teacher integrates (rather than divides) learners by sex /gender during activities	Math	0.0%	0%	33.3%	66.7%	12
	Science	0.0%	25.0%	8.3%	66.7%	12
	English	0.0%	0.0%	15.4%	84.6%	13
Teacher assigns girls and boys equally to all classroom 'chores' (chores not	Math	0.0%	0.0%	16.7%	83.3%	12
	Ccience	0.0%	0.0%	0.0%	100.0%	12
	English	0.0%	7.7%	15.4%	76.9%	13
Teacher gives boys and girls an equal amount of assistance and feedback	Math	0.0%	0.0%	0.0%	100.0%	12
	Ccience	0%	0.00%	33.30%	66.70%	12
	English	0%	0.00%	15.40%	84.60%	13

Inclusivity in the Implementation of CBC

The Basic Education Curriculum Framework (2019) and the Sector Policy for Learners and Trainees with Disabilities (2018) highlight the need and guide the provision of a differentiated curriculum to meet the diverse needs of all students in a class, including those with special needs (Heto, Odari, & Sunu, 2020). This section, therefore, showcases qualitative findings from conversations with teachers on the strategies they use to identify learners with learning difficulties and special needs, how they differentiate instruction and support this group of learners, and the challenges they encounter.

Strategies Used by Teachers to Identify Students with Learning Difficulties and Special Needs in the Classroom

Classroom Assessments and Exercises

One of the common strategies alluded to by the teachers in the study for identifying learners with learning difficulties and special needs was the administration of classroom assessments and exercises. According to the teachers, assessments can be conducted in various ways, including oral, written, practical, or observational. For instance, if a learner was unable to complete a 'simple' reading exercise like the rest of the learners, the teacher was eager to find out what the issue was. Teachers also reiterated that before concluding that learners had learning difficulties, they first re-examined their pedagogical practices to ensure that they were not the problem. Other teachers took deliberate steps to identify and assess learners who are not actively engaged in classroom activities due to physical disabilities, such as being hard of hearing.

R: As you teach, even as you ask the questions…You identify them and also when you do the assessments after marking you are able to identify them. So after marking you identify the learners with difficulties and as you teach you will keep on asking oral questions so you identify. (KII, Teacher, Upper Primary, Mathematics, Murang'a)

R: I had one but you differentiate him or her through reading and writing, I have one who is not special but they have difficulties in reading. I have really tried but I don't know how I can help him, but you identify him through reading and writing when you call him and ask him to read this sentence he cannot read…I discovered that through writing and even reading because when you tell him to read he doesn't read anything you give even the simplest ones they don't read. (KII, Teacher, Lower Primary, Murang'a)

R: For example, I can teach sound a, then I write the sound you know I normally call each child to go and read that sound so let's say I have written bed on the board so I call individual learners to go and read for me on the board so you realize some will read Bed others, DEB. Even others don't know they were following others when they were reading. So when you tell that individual child to read… totally unable to read. (KII, Teacher, Lower Primary, Nairobi)

Inability to Internalize and Complete Tasks

The inability to internalize the instructions to complete an assigned task, completing different tasks than assigned, and being slow at completing classroom activities were also mentioned as key indicators used by teachers to identify learners with special needs.

R: There are some…apart from the complete SNEs the completely special there are those that are slow learners, so you find that this child…In most the areas the learner is slow he is not able to do a simple task he is always the last one to finish. For example, children, if you talk about the environment you will tell them to model an animal that they know, so you find this one even making ribbons is a problem. Yes, and we even say doing it in a CBC class the child should be able to learn from the next child and to observe what the other person is doing like copying. (KII, Teacher, Lowe Primary, Murang'a)

R: A student with special needs if he has something like a brain problem you will see if you give this instruction the student will not do the exact thing you gave instruction to do in class or when you are just around the class. If you say write two sentences, I am just giving an example. The student will do the opposite of what you have given, so with that you will get to know the student needs special attention, he is going to qualify to be a special student. (KII, Maths Teacher, Upper Primary, Samburu)

According to the teachers, in addition to their ability to participate in classroom activities, learners with special needs also tend to have poor social skills. For instance, isolating or withdrawing themselves from others. Other learners find it difficult to settle down in class and instead resort to making noise or distracting other learners.

R: Number two these learners will try to isolate themselves from others because they don't move at the same pace as others, so you find they are withdrawn, you may find a child who is withdrawn, he doesn't love he is just there he wants to be alone (KII, Science Teacher, Upper Primary, Nairobi)

The teachers also noted that, despite learners with learning difficulties and special needs facing challenges in completing and engaging in theoretical classroom activities, they tended to excel at undertaking hands-on activities.

R: I talked about how we use different methodologies, we have the fieldwork, practical work, and theory work. So, that is where you will know this one is not good with classwork. Like I told you I have a boy, when we are doing home science you find the theory is hard for him but practical, he is good at doing it. Once he sees you doing he will do it and later when you ask <<<door opening>>> the name of this stitch he has no memory, but he does it perfectly. After they do their work they forward it so when assessing the work it is excellent. (KII, Teacher, Upper Primary, Samburu)

Strategies Used to Differentiate Instruction

When asked how they differentiate instruction and support learners with learning difficulties and special needs, teachers mentioned several strategies including the seating arrangement, practical learning activities, teacher actions, individual learner support, group remedial sessions, concerted efforts between curriculum support officers, schools, and parents, integrating fast and slow learners, and enhancing learners' self-efficacy.

- **Seating Arrangement for Learners with Visual and Hearing Challenges**

The classroom arrangement, specifically the seating arrangement, was mentioned as one of the effective strategies to support learners with different learning abilities and special needs. For instance, placing learners with visual impairment at the front of the class allowed them to follow what the teacher was doing on the blackboard. On the other hand, teachers would be able to monitor and support learners with learning difficulties in the class. The participants in the interviews had the following observations:

> *R: …those who have a visual disability we put them in front of the class so that they can see, you also make sure that when you are writing you write big letters. (KII, Maths Teacher, Upper Primary, Nairobi)*
>
> *R: Specifically in my class, I have one with an eyesight problem and one with a hearing problem so they sit in front of the class. I attend to them…In my class like the one I have told you he has problems with the eye it is physical. You can see you don't have to research to identify that so it is automatic. Even the one for hearing even him he does not hear well you have to shout more for him to hear. (KII, Teacher, Lower Primary, Samburu)*

- **Practical Learning Activities**

The focus on practical activities and nurturing talents in the competency-based curriculum was hailed by teachers as one of the aspects that allow learners with learning difficulties and special needs to participate in school activities. That way, learners who are unable or have limitations participating in mainstream learning areas have the chance to showcase their talents in other learning areas, such as the creative arts and music.

> *R: Maybe I can say that CBC is better whatever is working well is learning or skills for example in grade six we are learning the skills of playing the guitar in creative arts so this girl with disabilities should play it better or at par with the others so teaching skills has not been a problem because we are maybe preparing the seedbed you see that one does not require the girl to hear what we are saying it requires the sight so it is working well. (KII, Science Teacher, Upper Primary, Murang'a)*
>
> *R: Students with special needs always learn by observing so if you engage them in anything they can see, so you show them this is a book and this is the work of the book. I think with that they will learn through practical experience. I also think CBC is helping these students is a very wide way when it comes to practical. KII, Maths Teacher, Upper Primary, Samburu)*

- **Teacher Actions**

Teachers also noted that they adapt their teaching practices to accommodate learners with learning difficulties and special needs, such as using gestures, visual aids, standing close to learners, and employing large text on the board for learners with hearing and visual challenges.

> *R: For example, I have a learner in grade six who has a hearing challenge, they have a problem so when I am talking to them I have to incorporate some gestures. Number two when I am talking to them I have to ensure that I am in close proximity… the distance between me and the learner, unless when I am speaking to other learners who are typically okay so I can talk from far and they will get me. But for those who are challenged like the girl, with a challenge in grade six, I have to close the gap between me and them when talking to them. I incorporate visuals at least so that she can be in class like the others. (KII, Science Teacher, Upper Primary, Murang'a)*

- **Individual Learner Support**

Another strategy to support or differentiate instruction for learners with learning difficulties and special needs was individualized learner support for those who were not benefiting from whole-class instruction or were slower than their peers. Teachers applauded the competency-based curriculum for emphasizing on individualized learner support to ensure that all learners are learning, as opposed to the 8-4-4 curriculum, which was more exam-oriented and focused on covering the syllabus irrespective of whether learners were learning. More specifically, the individualized education program (IEP) was hailed as an important strategy that ensured no learner was left behind. Some of the individualized education program strategies alluded to by teachers included allowing extra time for learners to complete their assigned tasks, giving additional practice questions to enhance understanding, and individualized remedial sessions to help learners catch up.

R: There is much difference because in CBC those learners are taken care of let us take for example time, there is no time limit in CBC if it is a slow learner who writes slowly you have to give that learner time to finish his or her work unlike 8-4-4 when time is up everybody has to give their work. Then again in CBC, we have an IEP individualized education program you identify those learners with special needs then you teach them individually according to their needs. (KII, Science Teacher, Upper Primary Samburu)

R: I think now after you have identified the learner who has got learning difficulty then you give individualized attention to that learner so that you can get to know the challenges the specific area where the learner is challenged. Yeah in 8-4-4 it was a bit difficult because you did not have lot of time to do those things because you wanted pupils to pass the exams. So, getting time to give individualized attention it was a bit difficult because when you have got an examination that needs to be done and it is an national exam you have to tackle that exam, but with this one now you are gauging pupils according to exceeding expectation, below expectation that way. (KII, Science Teacher, Upper Primary, Murang'a)

R: When you look at a student and see that there is something that is challenging him/her level of understanding, sometimes you tend to take time with her or him during your breaktime ask him questions, "where do you feel weak, where do you want us to repeat" so you tend to sit with the student at one to one level. Yes so that if he feels you don't get what you teach from the class now you can have a personal contact with the student. Feel free to assist him with questions or a mode of learning that is quite different from the basic level. (KII, English Teacher, Upper Primary Murang'a)

R: So most of the time we try to get extra time maybe lunch time we go for lunch one hour you tell the learner you are going to eat for 30 minutes and the next 30 minutes we read just 5 sounds and see if the learner can improve. And it is working. (KII, Teacher, Lower Primary, Murang'a)

- **Group Remedial Sessions**

Group remedial sessions were also mentioned as one of the effective strategies to differentiate instruction for learners with reading difficulties. Since the academic calendar is tight, teachers would arrange for learners to be supported during their free time, such as during lunch breaks or weekends. During these remedial sessions, teachers would pay attention to the learners' learning needs to ensure that they maximize their gains. For instance, for non-readers, teachers would begin with foundational literacy skills, such as letter-sound knowledge or simple word reading, before progressing to higher-order skills like sentence reading.

R: If not I take a Saturday when I am free I just request them to come you know we have ample time on Saturday then I will teach them as groups. (KII, Maths Teacher, Upper Primary, Murang'a)

R: In my class, I have set aside some pupils who are quick in working out, in understanding, and even I have non-readers who cannot read. So, I have just told them to buy some exercise books, they have brought them and so during break time, I teach them two-letter words, three-letter words, how to read sentences, and even how to work out mathematics well. They can now read and others can work out mathematics well. (KII, Teacher, Lower Primary, Nairobi)

- **Concerted Efforts between Curriculum Support Officers, Schools, and Parents**

Collaboration among all stakeholders, including teachers, administrators, and, most importantly, parents, was cited as an effective strategy for identifying and supporting learners with learning difficulties and special needs. Together, education stakeholders can take the necessary action, depending on the school's capacity, for instance, by providing the learner with special needs education within the school or referring them to a special needs school.

R: Such students, because they have a mental illness, will tend to be sluggish in terms of learning, etc. Therefore, you take a step forward and create a special program maybe at games time or you call the parent for a one-on-one meeting and explain to them that the child has this problem. The work of the teacher is to deliver in class by ensuring the subject is delivered well, so the other part calls for special attention, for example, this student has this problem. If it needs special attention, I should involve a third party maybe the headteacher or the parent. If the parent comes in, we can now talk at the table and say we want to help your child because he has a problem and then we can organize a special class specifically for the student or we can advise the parent to take the child to a special needs school. (KII, Maths Teacher, Upper Primary, Samburu)

R: ...Sometimes we advise the children there are those with mild special needs we advise the parents to take them to different placement areas in special schools so that they can be assisted. (KII, Science Teacher, Upper Primary, Nairobi)

Teachers also highlighted that curriculum support officers played a crucial role in training and imparting the knowledge and skills they had in order to support learners with reading difficulties and special needs.

> *M: Following the training that you attended, what do you do differently in your maths classes?*
>
> *R: Currently I know that it is good to use teaching aid to facilitate the learner to understand well and also we learnt that we need to arrange the learners according to their capabilities and also I was able to arrange the learners to sit according to ability for example those with eyesight problems they sit in front of the class, those with hearing problems you put them there, there are those who are very bright you give them hard tasks, those who are slow you have remedial teaching with them. KII, Teacher, Lower Primary, Samburu)*

- **Integrating Fast and Slow Learners**

Teachers also echo that with CBC recommending group work activities, integrating fast and slow learners in classroom activities was also mentioned as an effective strategy to support learners with learning difficulties and special needs. According to the teachers, integrating learners with different abilities enhanced peer-to-peer support, with learners motivating and supporting one another to learn. In addition to the groups, some teachers also mentioned pairing learners so that they could help each other in learning areas where they were having difficulties. This strategy was seen to be effective as learners were more open and willing to seek assistance from one another, and because learners could explain concepts to each other in a simpler way.

> *R: Maybe peer learning because at times you find that your way of teaching maybe something skipped but you get the one who understand, you know the learners understand each other better. (KII, Teacher, Lower Primary, Samburu)*
>
> *R: When learning sometimes I will tell them there is peer teaching this one cannot sound 'M' but the friend knows, I will get "who is your friend in this class?" he/she points at the friend then I will tell them sit together during Kiswahili then the friend will teach the pupil. Even sometimes at break time I will get the friend so they teach one another. Because now the pupil will not tell me that they don't understand but they will tell the friend so there is that peer teaching. (KII, Teacher, Lower Primary, Murang'a)*

While appreciating the effectiveness of peer-to-peer support in supporting learners with learning difficulties and special needs, teachers stressed that this strategy required supervision from teachers to maximize the benefits. For instance, teachers had come to realize that, if left unchecked, learners with learning difficulties would end up merely copying what their peers were doing rather than attempting to comprehend the learning tasks.

> *R: Yes the challenge sometimes when you give the talented learner a weak learner to assist some will end up copying what the talented learner has done instead of following what they have showed them. (KII, Maths Teacher, Upper Primary, Nairobi)*

- **Enhancing Learners' Self-Efficacy**

Enhancing the learners' self-belief that they can execute assigned classroom tasks was also cited by teachers as an effective strategy to support learners with learning difficulties. This was especially important considering that these learners tended to have low self-esteem and self-efficacy. This was, however, suggested to be most effective when combined with other strategies, such as individualized support, assigning simpler tasks to those with learning difficulties, and encouraging other learners to be respectful towards learners with learning difficulties and special needs, thereby encouraging them to participate in classroom activities without fear of ridicule.

> *R: About self-efficacy so after working with them individually, you can even ask a learner to come to the front and do a particular sum the one that you know they can be able to do, so we have self-efficacy. (KII, Maths Teacher, Upper Primary,Murang'a)*
>
> *R: You see now you will arouse those learners and they will stand and accept themselves and they will see themselves as others and they will see that 'so I fit here' you know when they are demoralizing themselves they feel that they don't belong there. We also talk to the learners each and every learner to respect one another, each and every learner to love one another, this is your friend always see him as a brother or sister to you. (KII, Maths Teacher, Upper Primary, Samburu)*

Challenges in Supporting Learners with Learning Difficulties and Special Needs

This section highlights challenges encountered by teachers in differentiating and supporting learners with learning difficulties and special needs. The key challenges alluded to by teachers included an inadequate number of teachers in schools, limited time due to a packed school calendar, poor learner attitude towards individualized and remedial support, uncooperative parents, negative teacher perceptions about differentiated instruction, teacher capacity to handle learners with special needs, and learner absenteeism.

- **Inadequate Number of Teachers and Time**

Teachers, especially in public schools reiterated that they were finding it challenging to effectively differentiate instruction to support learners with difficulties and special needs during the whole class instruction due to the limited lesson time, combined with limited number of teachers and large number of learners in the classroomAs a coping strategy, teachers opted to arrange for remedial lessons for learners with learning difficulties after classroom hours, and in most cases they are not remunerated for that extra effort.

> *R: What we do because you are the same teacher and you can't divide the class this one this way and that one that way, so what we normally do, you teach them after that you give them remedial. Yeah remedials that is where they come after teaching. (KII, Science Teacher, Upper Primary, Murang'a)*
>
> *There are different approaches some of the approaches look similar in 8-4-4 to CBC on learners with disability, but to get time to handle these children according to public primary school I can be able to confess to you that it is very hard for a teacher who is handing 100 children. (KII, Science Teacher, Upper Primary, Nairobi)*

- **Learner Attitude towards Individualized and Remedial Support**

Whereas teachers echoed individualized and remedial support to be an effective strategy to differentiate learning, the learners' attitudes towards these kinds of support was a key challenge to their effective implementation. For instance, some learners felt that their free time is being taken away by enrolling in remedial sessions, while others were said to simply not be willing to get supported despite their teachers being ready to do so.

> *R: Some of the learners feel down maybe you are trying to create time for the learner when the others are playing out there they will feel that they are being oppressed so attitude wise the learner will not be able to encounter freedom, the learner will actually feel bad. (KII, Maths Teacher, Upper Primary, Murang'a)*
>
> *R: Yes you find some are not even willing to you find that you are ready to go to their level to create time to assist them but you find some are not even willing that is a challenge but for you as a teacher you are willing to go to their level. KII, English Teacher, Upper Primary, Murang'a)*

- **Uncooperative Parents**

The lack of or inadequate cooperation from parents was also cited to impede the teachers' efforts to support learners with learning difficulties and special needs. For instance, some parents did not follow up on the learners' progress at school, while others completed learner assignments on their behalf, making it difficult for the teachers to identify areas of further support and track progress.

> *R: You find they are less they (parents) are not concerned, when you are with them you put more effort but when you give them something to do at home you find that they don't do it themselves it is done by someone else. So you wonder how you will be able to guide them more than that when you give a task to do at home they don't do it themself someone does it for them. (KII, Teacher, Lower Primary, Murang'a)*

In some cases, parents were also said to hide information about their children's special needs or learning difficulties that would help teachers support the learners.

> *R: Okay like the parents, still on the parents I try as much as possible to guide them. You will find that some parents they hide some information like this learner was born something happened or with some difficulty but the parent will not reveal to you. You keep on asking…now looking at it the learner has some difficulties in reading and writing but the parents know the exact source of the problem but they don't want to disclose to you. (KII, Teacher, Lower Primary, Murang'a)*

Furthermore, some parents were reported to neglect their responsibilities, such as providing the necessary learning resources for their children, thereby undermining the teachers' efforts to support learners with learning difficulties. Teachers did, however, highlight that sometimes parents did not intentionally neglect their responsibilities but rather lacked the financial.

> *R: Challenges are there one even the parents they have neglected their own children, they feel that their children will not perform some of the children when you send them for something you feel even the response the parents will give them, they normally come to school and report to us "I tried to ask my mother to do this for me and she said she is not ready" and so those children they have challenges and some of them you may try to call the parents to come to school and they feel that you are going deep to their family issues. (KII, Science Teacher, Upper Primary, Nairobi)*

Parents were also perceived to be uncooperative in cases where they allocated conflicting activities, such as household chores, instead of allowing their children to attend remedial sessions to get support.

> *R: Maybe some sneak to go home that is an issue…in the afternoon there are no classes for grade one, two and three and once they sneak and come the following day they tell you mum told me to come back and hold the baby or go somewhere so issues from back home. (KII, Teacher, Lower Primary, Samburu).*

- **Negative Teacher Perceptions about Differentiated Instruction**

Some teachers felt that differentiating instruction during the whole-class activities was time-consuming. According to them, supporting learners with learning difficulties and special needs within whole-class instruction would disadvantage other learners, as it would require them to teach at a slower pace than they usually do, and in the process, compromise the teaching and learning process, as they would have to rush through some lessons to cover the lost time. For some teachers, differentiating instruction for learners with learning difficulties and special needs was tiresome as it required a lot of effort on their side.

> *R: Maybe the only challenge there I can talk of sometimes feeling like I am wasting time for the others you see this girl with hearing impairment you have to tell her the first time, second time and third time so that one will require more time compared to that learner who has no challenge so the issue of time. (KII, Science Teacher, Upper Primary, Murang'a)*
>
> *R: Sometimes it is tiresome, it needs one to have a bigger heart just to take time with the learner, to be patient with the learner, for you to know or to get back whatever you put in the learner, be patient to see whether there is a good result from the learner you give them time and you make their work easier by giving them time… Usually, it does (compromised how you want to deliver content to the learners) because if I have to take more time, then there are some learning areas I have to squeeze or rush to save time. (KII, Teacher, Lower Primary, Murang'a)*

- **The Teacher's Capacity to Handle Learners with Special Needs**

The capacity to manage learners with special needs, especially those who display behavioral issues, such as hitting other learners and tearing books, was mentioned as a key challenge to supporting them in an integrated classroom. Consequently, if these behavioural issues are not managed, they disrupt classroom activities. The inadequate capacity was mainly attributed to the lack of or inadequate teacher training in special needs education. The teachers' capacity to support these learners is further affected by the insufficient teaching and learning materials. At times, the school and teachers have to incur the cost of purchasing the resources from their pockets or sourcing the resources themselves.

> *R: Yeah there are so many challenges because for example I said that some you try even to control them and in the process of transforming the learner you find that you cannot be able to follow even during breaktime so you will be having cases in class. Maybe cases like he knocked on somebody, he took a book and tore it, he can even beat somebody because some are angry. (KII, Teacher, Lower Primary, Murang'a)*
>
> *R: Yes you find learners maybe the learners with special needs and maybe in this school there is no integration it is not supported to have learners with special needs but since there is no school with special needs department you find them in this school and it is difficult because you cannot have the learners with special needs in the same class with the normal learners it is difficult for the teacher. Again the number of teachers there are those who have specialized in special needs but they are not in this school so it is just us we teach the normal learners then you have to attend those with special needs. The special needs have things that should be in school but they are not there. (KII, Science Teacher, Upper Primary, Samburu)*

Teachers reiterated that one of the reasons why a majority of teachers are not well-equipped in special needs education is the structuring of teacher professional development courses on the CBC. They pointed out that during these sessions, teachers who were already handling SNE in their respective schools were separated from other teachers, meaning that the other teachers handling "normal learners" missed out on the capacity-building opportunities, yet they were expected to integrate learners with special needs into their classrooms.

> *R: During that seminar there was a time that we had two seminars in one whereby those who were tackling SNE they were in their own separate room and for us who were handling normal learners or typically developed learners we had our own room but still there had to be some, one two three points on those learners with SNE. (KII, Science Teacher, Upper Primary, Murang'a)*

Despite a majority of teachers reporting that they had received training, some did mention that special needs education is incorporated in the CBC training. For instance, the topic of assistive technology, where teachers are imparted with the knowledge and skills to incorporate learners with special needs in ICT training.

> *R: Yes when we are undergoing training ICT training or CBC training there is the issue of assistive technology when we talk of assistive technology is where you will be able to incorporate those learners with special needs. You know in the community we have we have those with hearing impairment, those learners who are more talented we are trained how to handle them in class. (KII, Science Teacher, Upper Primary, Nairobi)*

In addition, some teachers reported enrolling in a diploma program in special needs education or a diploma in learning disability at the Kenya Institute for Special Education (KISE) and in their teacher training institutions, on a self-sponsored basis. Others mentioned acquiring knowledge on special needs education through seminars organized by the Ministry of Education and Non-Governmental Organizations, as well as teacher professional development courses offered by various institutions.

> *R: So in KISE we are taught those learning difficulties and even how to know that child has a learning difficulty and how to help them. KII, Teacher, Lower Primary, Nairobi)*
>
> *R: Yes when we go for workshops they do teach us about SNEs…At least three times and I also attended one online on TPD which really helped me when I was in Mount Kenya university. (KII, Maths Teacher, Upper Primary, Samburu)*
>
> *R: We have not been trained under special needs but I remember there is a time I went through diploma in special need, so the knowledge that I learnt from there I don't think it is going to be so different…Diploma in learning disability. (KII, Science Teacher, Upper Primary, Nairobi)*

- **Learner Absenteeism**

Some teachers also reported frequent school absenteeism for learners with special needs as an impediment to continuous support. As a result, teachers echoed that they found it challenging to assess whether the learners are making progress or not.

> *R: Yes most of the learners who are special are absentees, so the pattern does not flow this minute you are here the next minute you are not. (KII, Teacher, Lower Primary, Samburu)*

- **Low Household Socio-Economic Status**

The low household socio-economic status was mentioned to be a key challenge, especially in the provision of required facilities/equipment for learners with disabilities or special needs, such as spectacles. In such cases, the school had to look for well-wishers to chip in.

> *R: The boy was not able to read the blackboard so I reported the case to the office so the office organized how the well-wishers would help the boy get the specs…Yes, the boy was from a very humble background so the parents were not able to provide. (Murang_a_KII_Teacher2_Numeracy_Lower)*

3.6 Parental Engagement and Involvement

This section highlights the findings on parental involvement in school decision-making, the communication channels used to communicate with parents, parents' understanding of their roles and responsibilities, and the expectations of curriculum developers, Ministries of Education (MOEs), and teachers regarding parental involvement.

Parents' Involvement in Decision-Making

The findings on parental involvement in decision-making regarding school matters showed a significant difference between public and private schools. Almost all (98%) of public school heads, compared to 68% in private schools, reported involving parents in decision-making.

Table 14: Parents' involvement in decision-making

According to the institutional heads, if parents are involved in decisions in the schools	No % (n)	Yes % (n)
Public	1.8%(1)	98.3% (56)
Private	31.7% (13)	68.3% (28)
Total	14.3% (14)	85.7% (84)

Further analysis revealed that the primary decisions in which parents were involved at both private and public schools included the development of school infrastructure, the purchase of school facilities, student enrollment, and the hiring of teachers.

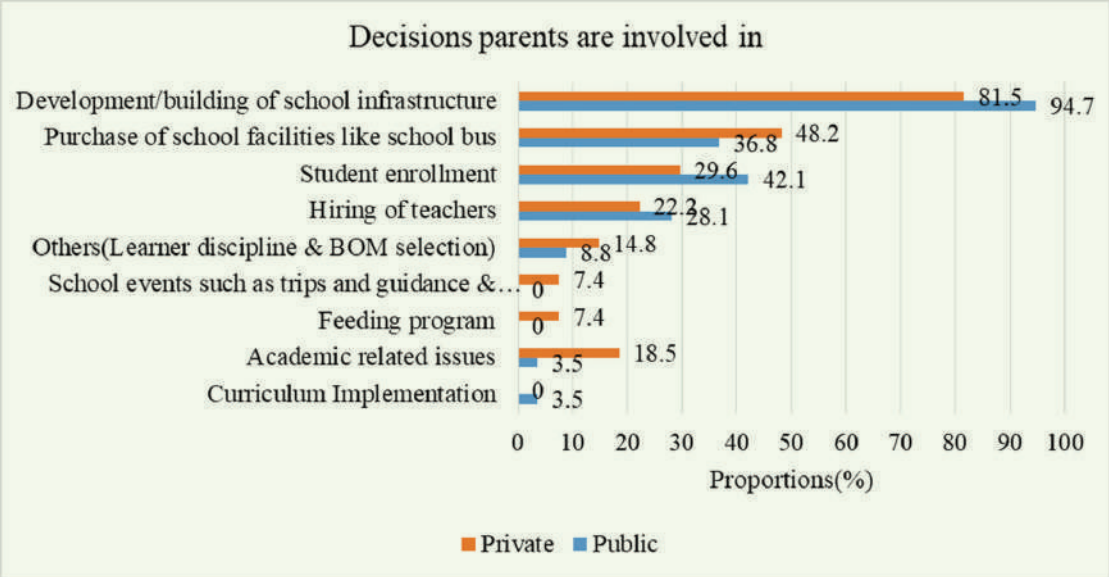

Figure 16: Graphical representation of decisions parents are involved in

Common Channels of Communication

The four most common channels of communication used to reach parents in private schools were telephone calls (78.1%), bulk SMS messages (63.4%), social media platforms such as WhatsApp (61%), and newsletters (51.2%). On the other hand, the most common channels for public schools included telephone calls (52.6%), newsletters (49.1%), face-to-face (45.6%), and sending students verbally (31.6%). In addition, according to the school head, the most effective communication channels for reaching parents were newsletters (31.6%) and telephone calls (36.6%) in public and private schools, respectively.

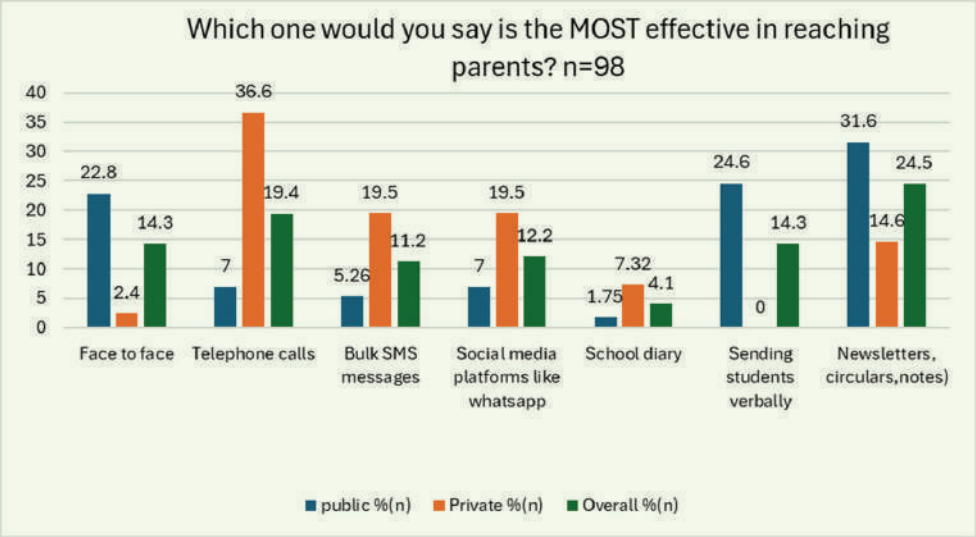

Figure 17: Channels of communication used by schools to reach parents

Parents' Communication Channels with Schools

In terms of the communication channels used by parents to provide feedback to the school, the four most common channels in private schools were telephone calls (78.05%), face-to-face interactions (60.98%), social media platforms such as WhatsApp (34.15%), and school diaries (31.71%). On the other hand, face-to-face (87.93%), telephone calls (58.62%), sending students (20.69%), and social media platforms like WhatsApp (15.52%) were the common platforms used by parents.

Table 15: Channels of communication used by parents to communicate to schools

Communication Channels Used by Parents to provide Feedback in School	Public %(n)	Private %(n)	Overall %(n)
Face to Face	87.9(51)	61(25)	76.8(76)
Telephone Calls	58.6(34)	78.1(32)	66.7(66)
Bulk SMS Messages	6.9(4)	17.1(7)	66.7(66)
School Website	0	0	0
Social Media Platforms like WhatsApp	15.5(9)	34.2(14)	23.2(23)
School Diary	10.3(6)	31.7(13)	19.2(19)
Sending Students	20.7(12)	7.3(3)	15.2(15)

Face-to-face communication and telephone calls by parents were reported to be the most effective feedback channel by school heads in public schools and private schools at 68.4% and 41.5% respectively.

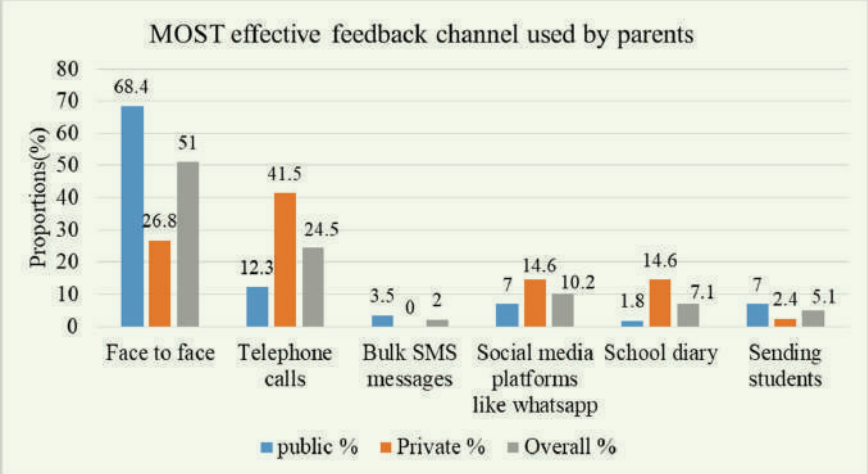

Figure 18: Most effective feedback channels used by schools to engage parents

Findings on the aspects that schools communicate to parents indicated that matters related to student performance topped the list for both public and private schools at 82.7%. Further analysis, however, showed differences between the two types of schools in terms of the aspects and magnitude. Students' performance (80.5%), school fees (80.5%), and discipline (48.8%) were the three common aspects private schools shared with parents, while students' performance (84.2%), discipline (79%) and CBC homework support (57.9%) were the common aspects shared with parents from public schools.

Table 16: Type and nature of aspects schools communicate with parents about

What Aspects does the School Communicate with Parents About	Public %(n)	Private %(n)	Overall %(n)
Discipline	79(45)	48.8(20)	66.3(65)
School Fees	40.4(23)	80.5(33)	57.1(56)
Student Health/Illnesses	45.6(26)	58.5(24)	(51)50
Student Performance/Progress	84.2(48)	80.5(33)	82.7(81)
School celebrations/Events, e.g. Parent Meeting, Sports	38.6(22)	41.5(17)	39.8(39)
CBC Homework and Support	57.9(33)	43.9(18)	52(51)
Field Trips	22.8(13)	46.3(19)	32.7(32)
Fundraisers	21.1(13)	9.8(4)	16.3(16)
Development/School Progress	3.5(2)	0(0)	2(2.04)
Others (when the school requires student's records)	0(0)	2.44(1)	1(1.02)

Parents' Involvement in Non-Academic Activities

The findings showed that a majority of parents in private schools were involved in sports days (65.9%), talent shows (48.8%), and career/motivational talks (48.8%). On the other hand, parents in public schools were mainly involved in sports days (57.9%), fundraisers (36.8%), talent shows (33.3%), career/motivational talks (33.3%), and volunteering services (33.3%).

Table 17: Parent's involvement in non-academic activities of a school

NON-ACADEMIC school activities are parents in this school encouraged to participate in			
Items	**Public %(n)**	**Private %(n)**	**Overall %(n)**
Sports Days	57.9(33)	65.9(27)	61.2(60)
Talent/Music Shows	33.3(19)	48.8(20)	39.8(39)
Fundraisers	36.8(21)	17.1(7)	28.6(28)
Career/Motivational talk	33.3(19)	48.8(20)	39.8(39)
Volunteering Services	33.3(19)	12.2(5)	24.5(24)
Tree Planting	7.0(4)	0	4.1(4)

School Trips	3.5(2)	9.8(4)	6.1(6)
Others (Thanksgiving and P{rayers, Parents Workshop)	3.5(2)	7.32(3)	5.1(5)

Parental Support for Grades 3 and 6 Homework Activities

Findings on parental support showed that most school heads agreed that parents either all time or sometimes supported their grade 3 and 6 children with their homework activities. However, the findings also highlighted that a proportionately higher number of parents in public schools rarely or never supported their children with homework activities. The main reasons for this was that parents felt that they were not well educated, too busy, or that the homework activities were too difficult for them to support effectively.

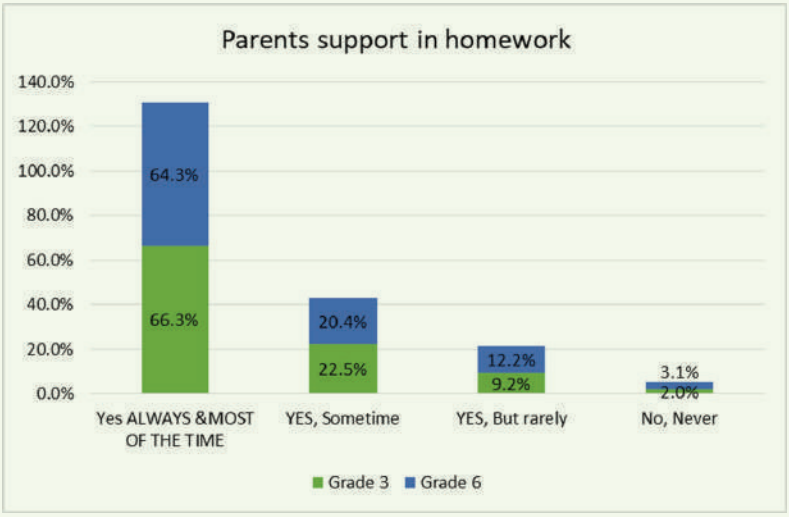

Figure 19: Parental support in their children's homework

Overall, heads of schools in both private and public schools reported that parents help the kids with homework for learners in grades 3 and 6. The findings show that more than half (66.32% and 64.28%) of parents respectively supported the learners with homework most of the time. For parents who rarely or never supported their children with homework, cited different reasons. The most common reasons were that the parents found the homework too difficult, parents were not educated, and parents were too busy.

Parents' Understanding and Perceptions of CBC

Parents' understanding and perceptions of the CBC vary. Still, they generally focus on its key elements, including talents and skills, practical learning, and the perception that it represents an improvement over previous education systems.

Many parents appreciate the CBC's emphasis on practical skills and early talent discovery. Parents acknowledged that CBC's focus is on nurturing learners' individual talents and practical skills beyond the traditional exam-oriented academics. Parents demonstrated support in identifying and nurturing their children's talents by observing them perform tasks and skills related to their talents, which will influence their future career pathways. One parent said, ***"CBC helps us to know the career of the child." (Samburu, Female Parents, R8)*** while another parent said ***"CBC is about talents. Like others know how to cook."*** (Muranga, Female Parents, R1) showcasing a positive view of the curriculum's focus.

Parents appreciated the lifestyle changes they observed in their learners at home, which resulted from incorporating practical tasks and life skills into the CBC learning process. The practical aspects of CBC may have promoted interaction between parents and their children, enhanced interpersonal relationships, and improved problem-solving and social well-being. As one parent noted, ***"CBC teaches them well; when she comes home she really sings and says the teacher taught her." (Muranga, Female Parents, R4)***

Some parents compare the frameworks and practices of the CBC, the previous 8-4-4 curriculum, and other education systems in developed countries. Their comparisons focus on talent identification, exam orientation, learning areas, and teaching methodologies. Parents pointed out that the 8-4-4 system did not allow learners to identify their talents, unlike the CBC. They also noted that while national exams were conducted in class 8 under the 8-4-4 system, CBC assessments occur in grades 6 and 9. Additionally, parents recognized that CBC includes more subjects, such as Music, Art and Craft, and Home Science, which were absent in the 8-4-4 curriculum.

They observed that learning in the 8-4-4 system was teacher-centered, whereas CBC is learner-centered. Parents also mentioned that the 8-4-4 system imposed heavier assignment loads on students than the CBC. Some parents view the CBC as an advancement over the 8-4-4 education system, as it aligns better with global education standards and emphasizes practical skills, which they find favorable. While some parents are well-informed about the curriculum changes, teachers note that others are still unfamiliar with the CBC and remain accustomed to the 8-4-4 practices, which can lead to a lack of cooperation from certain parents.

R: "During the 844 system, even those who had talents in music were not aware, it was not easy to identify a child's talents, but CBC has helped identify talent early enough…you find that a young child can cook, they can wash… has made children responsible at an early stage unlike during 844 when a child can reach up to form 4 and still they didn't even know how to cook." (FGD, Female Parents, Nairobi)

R: "This is a new system which is different from the previous one 8-4-4 where exams were done in class 8 and form 4 while in the new system CBC exams are done in grade 6 and grade 9." (FDG, Male Parents, Samburu, R4)

R:"The previous one its teachers who were working much to teach the students but in CBC even students are very involved in the curriculum." (FDG, Male Parents, Samburu, R4)

R: "Parents are still accustomed to the 8-4-4 system and may not fully understand CBC's focus on diverse skills." (KII English, Lower Teacher, Nairobi 240319_1129)

The Parents' Attitude Toward CBC

Parents shared their satisfaction with some aspects of CBC that they consider successful. Their approval focused on the following concepts: the CBC's emphasis on hands-on learning and practical skills, the positive impact of the CBC on discovering and nurturing children's talents, the curriculum's focus on independent learning and personal responsibility, and the assessment methods used in the curriculum.

Parents supported the curriculum's hands-on learning approach and emphasis on practical skills. They have observed that their children can learn and make more discoveries independently. Parents mentioned that they have received support at home due to what learners have been taught at school. This relationship helps parents and learners to bond and offers psychosocial support to learners.

R: "I love hands-on learning." (R5) parentR: "What I like about CBC is if a child is taught how to wash socks he/she will come in the evening and show you what they have learnt, if they have been taught to wash utensils they will come and help you wash the utensils." (FGD, Female Parents, Samburu)

Parents praised the curriculum for its role in identifying and nurturing children's talents. They mentioned that when children are supported in their area of interest, rather than being forced to perform a task they dislike, they develop a desire to excel. Parents expressed confidence in the talents that will shape the future careers of their learners. Most parents who observed their children's involvement in their interests and skills noted growth in responsibility and desirable behavior.

"CBC has really helped our children in terms of identifying their talents.". (FDG, Female Parents, Murang'a, R8)

"Non-forceful communication and joint success lead to better learning and enthusiasm." (FDG, Male Parents, Samburu R4)

"CBC helps the child to know what they can do in future." (FDG, Male Parents, Nairobi R5)

Parents appreciated CBC for instilling responsibility and independent learning at an early age. They noted that when learners learn by doing, they build on their creativity and independence in transferable tasks, such as helping with chores at home, like taking care of animals and cleaning. Parents also noted that learners demonstrated better academic performance and increased responsibility, and felt motivated and valued by their involvement in completing specific tasks.

R: "Children are motivated by their achievements, such as being recognized for good drawing or math skills." Another said, "Children become responsible and perform better in exams" (FGD, Female Parents, Murangá).

R: "Children learn to do tasks on their own after initial guidance." (FGD, Female Parents, Samburu)

Parents were happy with the broad but manageable curriculum and assessment methods. They were pleased with the learning areas taught, the practical approaches used to impart knowledge, and the benefits of developing talents for future career paths. Parents did not miss applauding community service learning, which imparts the values of respect and service to the learners.

R: ". "Okay on the subjects they are more but they are helpful because if a child doesn't understand mathematics he will understand home science, I think the subjects are very good" (FGD, Female parents, Murangá R4)

R: "I like CBC because it involves practical skills and helps the child to understand what they are learning." (R4)

R: "I will also support the practical because once the child learns how to do something with his own hands even during exams, he will be able to remember. " (FDG, Male parents, Murangá, R2)

R: "Involvement in community activities helps children learn to respect and assist others." (FGD, Female Parents, Samburu, R1)

Parental Roles and Responsibilities

Parental involvement is critical to the successful implementation of CBC. Parents mentioned various roles and responsibilities they perform to enhance learning. Their roles centered on three main areas: providing parental support in learning, meeting basic needs, and encouraging parental involvement in extracurricular activities. In addition to these roles, some parents are engaged in school managerial roles by attending Board meetings, parents' association meetings, and other school-level activities meetings.

Parents mentioned various roles in supporting learning activities, including providing learning resources, offering psychosocial support through motivation, and assisting learners with homework or school assignments. Most parents admitted to assisting with children's homework by reviewing, guiding, and directly helping with tasks. Parents acknowledged that it was challenging at the beginning to balance their daily tasks and support the learning process, but with time, they adapted and found the engagements beneficial.

R: "My responsibility is to ensure that they have basic needs, those must be met because they must dress up, eat and also have shelter"(FGD, Male Parents, Nairobi, R2)

R: "You check if they have completed the homework and in areas where they are not sure you support them to do it, that is the responsibility of the parents." (FGD, Male parents, Murangá, R2)

R: "I attend Parents Association meetings because Education is between me, the teacher and the child. Based on the needs of the school, we are encouraged to support CBC." FGD, Female Parents, Nairobi, R1.)

Parents met the expectations of learners and Curriculum Support Officers (CSOs), as well as Quality Assurance and Standards Officers (QASOs), regarding their support for their children with homework and assignments. CSO/QASO noted that, despite varying literacy levels and access to technology that hinders their participation, parents are expected to support learners with their homework. Learners also acknowledged and appreciated their parents' role in helping with homework and projects, noting that this offered them psychosocial support.

R: "My mother helps me in projects, especially science" (FGD, Girls, Nairobi, R3).

R: "I like it because my mother helps me with both homework and projects, and it brings us closer together." (FGD, Boys, Nairobi, R8)

R: "Sometimes it is a challenge because, in our county, I can say that most of our parents are illiterate" (KII, CSO/QASO, Samburu, 240404_0949).

Most parents attested to supporting learning by providing teaching and learning materials. Parents provided the necessary materials, including art supplies, construction items, and internet access. Parents identified their main challenges to material provision as financial constraints and limited access to materials due to remote location. Despite the challenges, parents ensured their children had what they needed for various assignments and projects proactively. Learners, in turn, acknowledged and appreciated their parents' efforts in providing resources that contribute to their education, including books, uniforms, stationery, and project materials Most learners' perceptions reflect parents' varying financial abilities and the fact that the material/resources provided by parents are sufficient, with some learners having a contrary opinion of the materials being insufficient.

R: "When the child comes and tells me the requirements that are needed at school I have to buy for him."(FGD, FemaleParents, Nairobi, R5)

R: "Ensuring that the children have books, pens., and also if there is anything else required because of CBC syllabus." (FGD, Male Parents, Samburu, R3

R: "Books, pencils, sharpeners" (FGD, Boys students, Nairobi) and "Uniform" (FGD Male students, Murangá).

R: "Yes, they are enough" (FGD Male students, Murangár) and "They are not enough" (FGD Female students,

Murangá)

R: "Some parents feel that the work CBC is giving is too much for them." KII, Science Teacher, Nairobi)

R: "CBC focuses much on parental engagement; one is that most of the content taught in primary schools requires parents to chip in by providing the required material and resources" (KII, CSO/QASO, Samburu, 240404_0949).

In addition to supporting learning activities, parents play an active role in nurturing their children's interests, skills, and talents through motivation, provision of resources such as balls, and expert guidance. Most parents mentioned supporting their children in developing skills in drawing, farming, sewing, games, music, teaching, practical skills, and self-reliance. Parents desire more involvement in school activities, especially sports and music. They are willing to participate if informed beforehand. Some parents reported meeting with teachers to discuss their child's performance, which demonstrates their efforts to support and develop their child's interests and talents.

Insights on Parental Roles from Teachers, CSO/QASOs, and Learners

Teachers observed that learners' participation in co-curricular activities is commendable, providing additional learning opportunities for learners to develop their skills and enhancing parental engagement. The CSO/QASO expects parents to actively engage in takeaway projects that connect classroom learning to the community, emphasizing the importance of practical application. Learners enjoy and find satisfaction in parents' support; they grow their emotional connection and relationship with parents during support and mentorship sessions.

R: "I enjoy the support because it strengthens our bond and helps me understand my work." (FDG, Boys, Nairobi, R6)

R: CBC involves the parents in the implementation. Homework is supposed to be done at home so that the parent is involved."(KII, CSO/QASO, Samburu)

R: "One of the components of the CBC is that we have to take back to the community, what the learner has learnt in school…" (KII, CSO/QASO, Samburu)

Some parents engage in school management by attending the Board of Management (BOM), and other school meetings to ensure effective learning management. Parents strongly advocate for these meetings as helpful and vital in supporting their children's learning outcomes. Parents celebrate school and learner achievements by attending Prize Giving Day, demonstrating the value they place on their children's learning accomplishments. Learners agree to have their parents attend school meetings. Parents' attendance patterns vary by meeting type, with mothers attending more frequently than fathers. Types of meetings include end-of-term exams, prize-giving days, opening days, and special events like changes in the school.

R: "We are mostly involved during prize giving day." (FGD, Female Parents, Muranga,

R2) ***"Recently we had sports and the teachers called me to follow up."(FGD, Male Parents, Nairobi, R4)***

Parents affirmed the provision of basic needs, such as food, clothing, and school supplies, to ensure that learners' fundamental needs are met. Parents reported being responsible for their children's health and safety, overall well-being, and preparedness for school. This involves regular monitoring and ensuring that children are well cared for, both physically and emotionally. Parents reported providing an extra layer of social support by enforcing life skills and discipline, which in turn promotes learning outcomes. Parents monitor their children's social interactions during the holidays and weekends to ensure they are well-behaved, have social values and life skills, and are disciplined. Learners appreciated their parents' roles in providing basic needs, but for some learners, the essentials are not always enough. They suggest that improved provision of food and basic learning amenities, such as books, stationery, and uniforms, will go a long way in supporting their learning in school.

R: "I make sure they have everything they need for school," (FDG, Male Parents, Nairobi, R5)

R: "I ensure they are safe and healthy."FGD, Male Parents, Muramgá, R3)

R: "I watch who they play with and discipline them when needed." FGD, Male Parents, Muramgá, R4)

R: "Giving us food" (FGD, Male students, Murangá)

Challenges Faced by Parents

Parents voiced their challenges and dissatisfaction with various aspects of the CBC during their engagement in its implementation. They noted frustrations with late or urgent requests for materials, high costs associated with CBC, which led to financial stress, and a lack of clarity regarding specific requirements or grading, resulting in confusion. Many parents feel that the CBC is overly demanding.

Most parents are uncomfortable with last-minute material requests, which can be a source of stress. Some have mentioned that they struggle to understand the requested materials, and the lack of time to source these add to their frustration. Teachers may misinterpret these urgent requests, combined with family economic pressures, as a sign of some parents lacking cooperation.

Parents are particularly concerned about the financial burden of CBC materials. Teachers recognize that parents face difficulties in meeting the financial demands for educational resources, which impacts their ability to deliver lessons effectively. Learners have highlighted that a significant challenge in their learning is when students fail to bring the necessary materials for classroom activities, resulting in delays and missed opportunities. Additionally, most learners have suggested that timely payment of school and exam fees is crucial to avoid educational disruptions.

R:"The parents cannot afford certain requirements." (KII, Maths Teacher, Murangá

R:"CBC is a bit expensive,"(FDG, Female Parents, Nairobi, R1)

R:"when you are asked to bring materials for a particular activity then we have others who will not bring" (FGD,Female students, Murangá R8)

R:"I want school fees because mostly I am sent home because of school fees." (FDG, Boys, Nairobi, R8)

R:"They should ensure they pay for exams.")(FDG, Girls, Samburu, R2)

R:"CBC is a bit expensive... CBC KNEC assessments I used almost 22000 and the capitation provided by the government does not cover that." (KII, CSO/QASO, Samburu)

R: "We are randomly asked for materials very late in the evening.".(FGD, Female parents, Murang'á R3)

R:"Some parents complain about the cost of materials." - (KII, Teache, Murangá)r

R:"If parents are asked to bring materials, it is better if they are given more time..." (FDG, Female parents, Murangá R2)

Parents find it challenging to understand the new concepts and methods introduced in the CBC. The unclear specific requirements and structure of the CBC add to their confusion. Some parents have expressed that they are unfamiliar with the CBC. Teachers noted that parents are accustomed to the 8-4-4 education system and its ranking of learner performance. As a result, they often struggle to grasp CBC terminologies such as "below expectation" or "exceeding expectation." Additionally, teachers highlighted that varying literacy levels and the use of the mother tongue can complicate understanding and communication. This helps explain why some parents are unsure about the specific resources teachers request.

R: "Parents don't know how to do many things CBC-related,"(FDG,Male Parents, Samburu, R7)

R:"CBC doesn't rank children, so parents don't know how their child is performing..." (FDG,Male Parents, Samburu, R7)

R:"In CBC we use 'below expectation', 'exceeding expectation'... they are not able to understand those terms." (KII, Science Teacher, Murangá)

R:"Parents are still accustomed to the 8-4-4 system and may not fully understand CBC's focus on diverse skills." (KII, English Teacher, Nairobi) R:"Training of parents on CBC." (Teacher 5) "Sensitize the parents on what is required for CBC." (Teacher 12)KII, Maths Teacher, Nairobi) "Significant challenge due to learners primarily speaking in their mother tongue ." (KII, English Teacher, Samburu)

R:"A child is asked to bring something to school, but parents don't understand what it is..." (R6)(FGD, Female Teachers, Murang R6)

Some parents have voiced general dissatisfaction with the demands of the CBC curriculum. They may express this concern about the practical aspects of CBC, which require parents to provide resources for practical learning and projects. Parents are also struggling to allocate their time to balance their jobs while supporting homework activities and projects.

> *R: "Some parents feel that the work CBC is giving is too much for them." (KII, Science Teacher, Nairobi)*
>
> *R: "Limited time due to work commitments, affecting ability to assist with assignments." (FDG, Male Parents, Samburu,R4)*

Coping Strategies

The most common challenge cited by parents is financial constraints, while some also mentioned a lack of knowledge about the CBC. Parents identified various strategies to address the challenges they faced while implementing CBC, including borrowing money, seeking support from teachers, requesting additional time, and utilizing available resources. Regarding their lack of knowledge, parents noted that attending school meetings and experience supporting learners added valuable insights into the CBC.

Parents often borrow money or resources from friends, loan facilities, or other sources to meet the CBC's demands. This reflects their complaints about the randomness and urgency of learners' requests for materials. Additionally, parents frequently seek support from teachers. However, they may not explicitly mention the type of assistance they receive, including financial aid, emotional support, or guidance on modifying required resources.

> *R: "You have to borrow a loan to manage the challenge." (FGD, Murangá, Female parents, R5)*
>
> *R: "I ask friends for assistance when I can't buy materials..." (FGD, Female parents, Murangá R7)*

Parents frequently request extra time to gather materials, with those in Samburu expressing concerns about the inaccessibility of learning resources due to their remote locations. Financial constraints also play a role, mainly when they cannot afford the necessary items, prompting them to ask teachers for more time.

> *R: "We should be given more time to source materials." (FGD, Female parents, Murangá, R2)*
>
> *R: "Issues with accessing materials due to remote location." (FGD, Female Parents, Samburu, R7)Samburu (Female Parents)*

Community resource sharing among parents helps alleviate some of the pressures. Parents noted that learners often share resources in class to meet material demands and create a conducive learning environment. Some parents use technology to access or download required materials, reducing costs.

"The learners support each other by sharing resources."

> *R: "We use smartphones to access and download materials when needed." (FGD, Female ParentsSamburu, R1)*

Many parents struggle to understand the new concepts and methods introduced in the CBC. Some acknowledge that attending school meetings allows them to discuss their challenges and find solutions, while others have gained insights into the CBC by working on tasks with their children.

> *R: "I call the teacher and explain my challenges." (FGD, Female Parents, Nairobi, R1)*
>
> ***"It helps to discuss CBC challenges as it provides mutual support and solutions." - Samburu (Female Parents)***
>
> ***"Initially challenging, but becomes easier with familiarity; involves practical support." - Samburu (FGD, Female Parents, Samburu, R4)***

Recommendations for Improvement

Parents offered recommendations to address their challenges and enhance the effectiveness of CBC implementation. They emphasized the need for parental training on CBC, improved access to learning materials, and better planning of support activities to balance work and study. Parents recognized that training is essential for understanding CBC methods, structure, terminologies, and their roles. Teachers echoed this sentiment, highlighting that increased awareness and involvement from parents would enhance their attitudes, cooperation, and support for the implementation of CBC. They also expressed the need for regular CBC training, ongoing support systems, and motivation through recognition for professional development.

> ***"Suggests government training for parents on CBC methods." (FGD, Female Parents, Nairobi, R1)***
>
> ***"Let us have more training on CBC so that we can be equally equipped." (FDG, Female Parents, Samburu, R7)***
>
> *R: "Suggest the government supply learning materials." (FGD, Female parents, Murangá, R2)*
>
> *""Suggest bulk purchasing of materials through collective efforts." (FGD, Female parents,Murangá, R8)*
>
> *R: "Recommend better scheduling to reduce pressure on parents and children" (Muranga, Male Parents)." (FGD, Male Parents, Murangá, R4)*

Curriculum support officers acknowledged the gap in parents' understanding of CBC and recommended more frequent meetings involving all stakeholders to enhance the effectiveness of the curriculum. Parents called for improved access to necessary learning materials, particularly in remote areas, suggesting that the government plan to ensure materials are easily accessible. They also proposed that schools purchase materials in bulk to reduce costs. Many learners emphasized the need for adequate resources, such as books, stationery, and uniforms, as well as support for school projects, to encourage their involvement in academic activities. Additionally, learners and teachers recommended improvements in play fields, recreational areas, and laboratory facilities to meet CBC requirements.

Curriculum support officers are aware of the financial strain on parents associated with providing materials for practical activities and suggest that learning materials should be provided promptly and in full. They advised schools to avoid direct monetary requests and instead pursue collaborative approaches with parents, exploring alternatives where costs cannot be met. Teachers further recommended that the government ensure the availability of necessary teaching materials and textbooks, aligning curriculum activities with local resources and diverse learning needs. They also emphasized the importance of providing schools access to digital devices, internet connectivity, and alternative power sources where electricity is unavailable to support digital learning. In addition to the call for government provision of digital devices, CSOs and QASOs recommend strengthening teacher recruitment, ensuring regular ICT training for educators, and enhancing monitoring and evaluation by education officials to support effective curriculum review and implementation.

> *R: "Parents should be sensitized to have positivity towards CBC,"(KII, CSOs/QASOs, Samburu)*
>
> *R: "Instead of asking for money from the parents, we call them for a meeting, and then they decide how they will get the materials" (KII, CSOs/QASOs, Samburu)*
>
> *R: Teachers "necessary teaching materials and textbooks are available and up-to-date is crucial." , such as "maps, construction equipment, and digital devices." (KII, Science Teacher, Nairobi)*
>
> *R: "The one that can be very effective is through the PTA Parents Teachers Association… So I think this one can be made more effective by trying to involve the people who plan for these meetings…" (KII, CSOs/QASOs, Samburu)*
>
> *R: "We equip our teachers on ICT knowledge and skills." (KII, CSOs/QASOs, Samburu)*
>
> *R: "Employment of more teachers to curb the shortage." ((KII, CSOs/QASOs, Samburu)*
>
> *R: "Recommendations include frequent monitoring and evaluation by education officials, better stakeholder involvement, and more time for comprehensive reviews. There is also a need for more teachers to address shortages." (KII, CSOs/QASOs, Samburu)*

Parents were urged to plan school learning activities more effectively to manage assignments more efficiently. CSOs noted that engaging parents through Parent Teacher Association (PTA) meetings with adequate notice could improve participation. Most learners highlighted the importance of timely school fee payments to prevent disruptions that could lead to learning loss. Some students also requested general support for their well-being and academic success. The discussions initiated by PTA meetings will be crucial in addressing the general needs of learners, like food, exam fees, among others, and misunderstandings, fostering a harmonious approach among parents, teachers, learners, and education stakeholders.

R: "Buying Uniform, books and biro." (FGD, Female Learners, Samburu, R4

R: "Continue helping me with the project work requirements." (FDG, Male Learners, Nairobi, R7)

R: "To pay school fees so that I can learn well without disturbance." (FGD, Female Learners, Nairobi, R3).

R: "Giving us food" (FGD, Male students, Murangá R5)

R: "Increasing the field." (FGD, Male students, Murangá,R7)

R: "She pays my tuition and trip so that when people are going for trip the I am also able to go." (FGD, Female Learners, Nairobi, R1)

4.0 DISCUSSION

Teacher Pedagogical Practices in the Implementation of CBC

The findings showed that the majority of the teachers made significant efforts in the use of the required pedagogical practices, such as giving constructive feedback, scaffolding instruction, engaging learners, and using learner-centered instructional strategies. These findings could be explained in the context of teacher self-determination and motivation as argued by Brenner (2022). According to Brenner, teachers' self-determined motivation leads to increased instructional strategies that support learners' achievement of learning outcomes. The findings could also be attributed to the continuous teacher professional development training conducted through concerted efforts by the Teachers' Service Commission, the Ministry of Education, and other key education stakeholders.

The findings also show that some teachers were still not utilizing the required teaching and learning strategies as outlined in the 2017 basic education curriculum framework. This could be explained by inadequate teachers' knowledge of how to link the content being taught with the right pedagogical practices, as argued by Akala (2021). In addition, despite digital literacy being a core competency within the CBC, results show that ICT was minimally integrated in teaching and learning. This could be attributed to inadequate digital resources and teachers' limited skills in using digital devices (Akala, 2021).

How CBC implementation practices promote equity and inclusivity

The findings showed that the majority of teachers practice gender-responsive classroom practices. Teachers make efforts to identify learners with disabilities, either through assessment tests or by observing their behaviors. Teachers also mentioned some of the strategies that they use to accommodate learners with disabilities, such as preferential seating, inclusive teacher actions like the use of gestures, remedial classes, individualized learner support, and mixing fast and slow learners, among others. These findings align with previous research, particularly in the areas of differentiated instruction and inclusive classroom strategies, which support learners with disabilities and special needs in education. For instance, Saif et al. (2024) articulates the importance of differentiated instruction for students with learning disabilities in an inclusive setting. In addition, Oketch et. al., (2021) argues that inclusive education should be treated as a right and not a privilege for learners with disabilities and other special needs in education and draws attention to policymakers to support it.

On the other hand, the results show that challenges are experienced in supporting learners with learning difficulties and special needs, including limited human and time resources, uncooperative parents, teachers' perceptions about differentiated instruction, poor foundational literacy skills, teacher capacity to handle learners with special needs, and learner absenteeism. These findings relate to other past studies where schools and teachers experience challenges. For instance, according to a study by Simón et al. (2021), complexities still exist in the inclusion processes, especially in relation to support and curriculum. Gaps in teacher capacity to handle learners with disabilities have also been reported in a previous study by Andiema (2020), conducted in the Kenyan context, whose research result showed that the majority of special needs teachers were not adequately prepared to undertake evaluation and assessment of children with special needs in line with the new CBC curriculum. Teacher training gaps also exist in other contexts. For instance, in a study conducted in the Philippines, most teachers teaching children with learning disabilities did not receive any special needs education training from the school, and thus felt that they were not qualified to teach these children.

Parents perceptions and understanding of their roles in the implementation of CBC

Parents' perceptions and understanding of the CBC was checked, and findings revealed that parents appreciated the role CBC plays in building their learners' competencies, such as the achievement of practical skills and early talent identification. In addition, most parents appreciated the lifestyle changes they observed in their learners at home and noted growth in responsibility and desirable behavior. However, parents find it challenging to understand the new concepts, the structure of CBC, and the specific requirements in its implementation. These findings relate to those from an earlier study conducted in Kenya by Mwarari et al., (2020) on parental engagement, which highlighted a lack of resources, absence of induction, lack of time, and inadequate knowledge and skills on CBC to support learners.

On parents' understanding of their roles, the findings reveal that parents mainly supported learners with homework tasks, project work, and the provision of required learning materials. However, parents faced challenges in carrying out their roles. For instance, they expressed frustrations caused by late or urgent requests for learning resources and the high costs associated with CBC materials. These findings are consistent with a study by Yungungu and Rodgers (2022), which found that parents play various roles, such as providing basic needs, imparting discipline, and role modeling. However, Rogers and Alice (2023) noted that communication breakdown and poor teacher-parent collaboration were setbacks to effective parental engagement. Based on these findings, it can be argued that parents play a crucial role in their children's educational journey, and thus, their empowerment and engagement are essential for the implementation of CBC.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This study sought to establish teachers' pedagogical practices within the competence-based curriculum in lower primary and middle school education; examine and identify effective areas in the current CBC implementation in basic education; understand how the CBC curriculum supports equity and inclusive education for vulnerable learners; and understand the role of parents in the CBC implementation. This section outlines the study conclusions and recommendations regarding these areas of study focus.

Regarding pedagogical practices, the curriculum content cannot be delivered without the pedagogy (Hoadley, 2024). It can be argued that both the content and the pedagogy are important elements in curriculum implementation. Therefore, it is essential to equip teachers with specific pedagogies that align with the tenets of a competency-based curriculum and are suitable for use in diverse learning contexts and across various subject areas.

Equity and Inclusivity are essential components in education as stipulated in the Sustainable Development Goal (SDG) 4. Although teachers have made good efforts in identifying and supporting learners with disabilities and special needs in education, there are challenges that impede the achievement of desired goals. The study thus recommends continuous professional development of the teachers on inclusive strategies and practices that promote support for learners with disabilities and other special educational needs.

Parents, being key stakeholders in education, play a critical role in supporting the education of their learners. The study concludes that parental engagement in implementing the CBC curriculum is of utmost importance. To facilitate their continuous engagement and involvement, it is essential to deepen their understanding of their roles, as well as that of competency-based education. The study thus recommends targeted training for parents, focusing on components such as CBC concepts, CBC structure, and their roles in the implementation process.

Competency Based Curriculum being a key component of the Kenyan education system, there is a need for concerted efforts among education stakeholders to ensure its successful implementation across all levels and pathways. This study highlights focal areas, including teachers' pedagogical content knowledge, equity and inclusivity, and parental engagement, that require strengthening to achieve the intended vision of engaged, empowered, and ethical citizens.

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