



AN EVALUATION OF THE INFLUENCE OF CURRICULUM RELATED DOCUMENTS ON IMPLEMENTATION OF CBC IN MBEERE SOUTH SUB-COUNTY PRE-PRIMARY SCHOOLS

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Abstract:

The aim of this study was to evaluate the influence of curriculum-related documents on the implementation of CBC in Mbeere South Sub-County pre-primary schools. The Curriculum Implementation Theory by Gross (1971) directed the correlational research design study. Purposive sampling was used to select Mbeere South Sub-county, while simple random sampling was used to sample 11% (28) pre-schools/head teachers out of 254 and 11% (56) pre-primary school 1 and 2 teachers (PP1 and PP2) out of 508, or 1 per class in the sampled pre-primary schools, where questionnaires, interviews and observation schedules were employed to collect data. Validity of the research instruments was ensured through aligning all the research content with the study objectives, while the split-half technique was used to determine their reliability and Cronbach's Alpha was used to correlate the study items at a coefficient of 0.7. Qualitative data was analysed thematically through narratives, and descriptive statistics such as frequencies and percentages were used to summarise quantitative data, while Chi-square was employed to test the null hypothesis: H01: There is a significant relationship between the availability of curriculum-related documents and the implementation of CBC in preschools in Mbeere South Sub-county. The findings of the study were presented in graphs, charts and tables. The study findings revealed that curriculum-related documents, namely class timetables, pupil attendance registers, schemes of work, lesson plans, records of the work covered, pupil assessment registers, and those of their socio-emotional development, were not adequately maintained. Hence, the implementation of CBC with respect to the infusion of non-formal learning, the incorporation of modern

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and key issues in the learning process, and the conducting of formative as well as summative assessments were circumvented. Chi-square test results for H01 showed a statistically significant association between the availability of curriculum-related documents ($p = .022 < .05$) and the CBC implementation. The study thus concluded that the implementation of CBC was still below the expectation, which was attributed to infrequent use of class timetables, schemes of work, lesson plans and records of work. This study recommended that the Kenya Institute of Development should therefore intensify training for teachers to accelerate their capacity in terms of the appropriate use of teaching and learning resources, including the ICT course books and summative assessment.

Keywords: competence-based curriculum, curriculum-related documents, implementation, pre-primary schools

1. Introduction

A well-designed curriculum is one of the most important factors in determining a nation's level of educational achievement (United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2018). According to Nordin and Sundberg (2020), Sweden partially decoupled its competency-based strategy in 2011 and adopted a blended approach that was influenced by the OECD's policies. A similar study by Cerezo et al. (2020) found that Spain revised its primary education curriculum in 2006 to include a set of core competencies. These competencies encompass language, mathematics, science, technology, digital literacy, social and civic competence, cultural expression, and initiative. In addition, the government sanctioned and oversaw the annual distribution of educational materials to all schools, a step taken to guarantee that students would acquire the fundamental skills necessary to become respectable adults. The aforementioned studies from Sweden and Spain may not be relevant to our local or regional contexts because they were carried out in industrialised nations with advanced technology and sufficient educational resources. So, it was necessary to look at how CBC implementation was going on a regional and local level.

According to an African study by Nsengimana et al. (2021), Rwanda used CBC in 2015 to facilitate the integration of theory and practice in the classroom and to eliminate the false distinction between theoretical knowledge and practical skill acquisition. Ndiokubwayo et al. (2021) found that a lack of sufficient learning resources prevented many Rwandan teachers from engaging students in the activities that were needed by the curriculum. It was necessary to undertake a study on a local level to determine if pre-primary schools in Kenya had sufficient learning resources for the implementation of CBC since the difficulties encountered in Rwanda might not be relevant to Kenya. Primary schools in Tanzania were the first to implement CBC, according to Kanyonga et al. (2019), with secondary schools and technical institutions following suit. Although many educators received in-service training on implementing the CBE curriculum, other

obstacles, such as a lack of suitable learning materials, hampered its rollout. However, since the aforementioned research took place outside of Kenya, it might not apply to our unique situation. Consequently, studying how these elements affected CBC implementation in Kenya was crucial.

The goal of implementing CBC in 2017 was to move away from the content-based 8.4.4 curriculum, according to the Republic of Kenya (RoK). Using a learner-centred pedagogy, formative assessment approaches, and an emphasis on the development of competencies and the application of knowledge in real life, the new curriculum was envisioned to equip learners with the relevant skills of the 21st century (RoK, 2017). These skills would enable them to thrive in the dynamic global society. To realise CBC's emphasis on active learning, early learning centres must have the right facilities (Educationtrends, 2021). In light of the fact that the aforementioned interventions can fall short, it was necessary to identify the steps that have been taken in the shape of curriculum-related papers to facilitate the curriculum's implementation (Mugo, 2021). In addition, schools should have completely transitioned to CBC five years following its rollout; however, Embu County is just one of many areas in Kenya where primary schools have reported difficulties with implementing CBC (Educationtrends, 2021).

Children in pre-schools are among the youngest and most susceptible to harm, yet this study did not include them. Therefore, assessing the current state of curriculum implementation in Embu County since 2021 was of utmost importance. Equally crucial was an analysis of the ways in which pre-primary schools' physical infrastructure, learning tools, and documents pertaining to the curriculum affected the effective implementation of CBC. This study set out to address that gap by exploring the characteristics pertaining to schools and how they affect CBC implementation in preschools. Any nation can build a strong foundation with quality education. A practical and society-relevant curriculum is essential for nations to reach their educational objectives. Therefore, it is crucial to regularly examine the curriculum to ensure it continues to meet the needs of society. To better prepare students for success in today's dynamic global culture, Kenya undertook a curriculum reform process in 2018 that resulted in the adoption of CBC over the content-based 8.4.4 curriculum. The Kenyan government has diligently worked to ensure the successful implementation of the new curriculum. Concerns about CBC's status in pre-primary schools, teacher competency, and the availability of resources and infrastructure persist five years after its introduction, and the general public and educationists alike continue to feel dissatisfied with the program's incomplete implementation in schools across the country.

1.1 Objectives of the Study

- To evaluate the influence of curriculum-related documents on the implementation of CBC in Mbeere South Sub-County pre-primary schools.

1.2 Research Hypotheses

HA: There is a significant relationship between the availability of curriculum-related documents and the implementation of CBC in pre-schools in Mbeere South Sub-county.

2. Literature Review

2.1 Theoretical Review

The Curriculum Implementation Theory by Gross (1971) guided this study. The theory posits that the implementation of any educational curriculum depends on four elements or components: i) provision of management support, ii) clarity of innovation and/or of the new curriculum goals, iii) Capability, or the extent to which the individuals who are implementing the programme understand its process, and iv) Availability of resources. In this study, managerial support and arrangements as identified by Gross (1971) were assessed based on available curriculum documents such as KICD curriculum designs, timetables, pupils' attendance registers, schemes of work, lesson plans, records of work and pupils' assessment registers that guide the implementation of CBC in the schools.

As far as the clarity of innovation/or of the new curriculum goals as envisioned by Gross (1971) is concerned, it requires that teachers who are the implementers and change agents, parents and the general populace be made aware of the new curriculum and particularly its aims for support and ownership for successful implementation. It means all the stakeholders listed above must have a clear understanding of where they are coming from and where they are going, including the responsibility required of them. Mulenga (2020) affirms that educational authorities or the Ministry of Education must have made and facilitated prior training arrangements. Failure in this aspect may halt the entire curriculum implementation process.

The theory was therefore relevant for use in the current study because the process of curriculum implementation plays a key role in determining whether an intended curriculum like CBC achieves its desired outcomes or not. Loveline (2020) concurs that the need for change must include the dimension of implementation, namely material, teaching approaches, beliefs and students' performance. Thus, the study sought to establish how curriculum-related documents, use of adequate learning resources and school infrastructure influence implementation of CBC in pre-primary schools in Mbeere South Sub-County in Embu County, Kenya, as Gross (1971) proposed.

2.2 Empirical Review

Curriculum implementation is the process of stimulating and supporting interaction between teachers and children (Ferns et al., 2025). This, by extension, includes parents of young children since CBC incorporates them into implementation activities in a supportive role. Parents may therefore help their children develop skills like critical thinking and problem-solving at home, which are part of the CBC core competencies. According to Amutabi (2019), CBC is sensitive to cultural and social circumstances, in that it accounts for the fact that students frequently pick jobs based on their environment.

This emphasises the necessity of exposing students to a variety of vocations and career paths, allowing them to make educated selections regarding appropriate subjects or courses. Khan et al. (2024) investigated how lesson planning affected Pakistani primary school pupils' academic achievement in English. The study, which focused on eighth-grade pupils in a single government school, used an experimental pre-test post-test control group design. Pre and post-test were done on the data collected from a sample of 40 students, who were then split into experimental and control groups. Both independent and paired sample t-tests were used for the analysis. The results stressed that systematic lesson planning improves student performance, noting how crucial it is for teachers and curriculum designers. This study was restricted to a single subject, a small sample size, and a controlled experimental setting, despite the fact that it offers insightful information on the effects of curriculum-related papers on improving learning results.

Tahirsylaj and Wahlstrom (2019) in their study analysed Sweden's and Kosovo's documents on curriculum policy as well as education policy. Findings showed that Swedish policy on the critical thinking core-competency appeared to be very implicit rather than obvious. Kosovo's policies, however, made explicit reference to thinking competencies as a configuration of "policy-critical thinking" and civic competencies as a form of civic-critical thinking. In Zambia, Mashekwa (2019) in a related study on, *"Assessing the challenges of implementing the new curriculum in the teaching of English"*, reveals that the implementers, in this case teachers, lacked understanding of the curriculum design meaning that even though the curriculum design was available it failed to sufficiently facilitate curriculum implementation in primary schools. Furthermore, 60% of the teacher respondents failed to use the curriculum designs appropriately as they did not teach all the components in the new English syllabus, while 20% of them were said to be still using the old syllabus for teaching (Mashekwa, 2019). In addition, only 15% of them prepared for lessons, meaning that the greater majority did not have their lesson plans available for implementing the English curriculum, thus raising doubts on the status of learning in the sampled primary schools in Zambia.

In Uganda, Mugoya and Nalukwago (2021) looked into how teacher preparation might improve students' academic achievement in government-run elementary schools in Uganda's Namutumba Town Council. To ensure efficient instructional delivery and compliance with curriculum objectives, their study emphasised the importance of structured lesson planning and work plans. Derived from work schemes, lesson plans are crucial instruments for content organisation, lesson sequencing, and the selection of suitable teaching strategies and materials. This study focused on primary school students and did not investigate how curriculum-related papers affect the Competency-Based Curriculum (CBC) implementation in pre-primary education, despite emphasising the value of such documents in promoting academic achievement.

Namaalwa et al. (2024) explored stakeholder perspectives on learner-centred pedagogies within the Competence-Based Curriculum (CBC) in selected secondary schools in Kampala District. The study, guided by Gross et al.'s (1971) curriculum implementation theory, employed a qualitative approach under the interpretivist

paradigm. Using a single case study design, the researchers gathered data from 22 purposively selected participants, including head teachers, teachers, and students, through interviews, focus group discussions, and observations. Their findings indicated both positive and negative aspects of learner-centred pedagogy. While these approaches promoted active participation and skill development, challenges such as inadequate teacher training, limited instructional materials, and time constraints hindered effective implementation.

According to a Tanzanian study by Nombo (2022), 78% of teachers were unable to connect their instructional planning with CBC standards because they lacked the necessary training, highlighting shortcomings in the creation of lesson plans and schemes of work. The study found several important shortcomings, such as instructors' poor execution of the curriculum and difficulties creating efficient lesson plans and work schemes. These flaws made it more difficult to use the teaching resources and pedagogical strategies that CBC required. The study did not, however, take an in-depth look at the function of curriculum-related papers in pre-primary education, and it was restricted to Tanzania. Kigwilu and Mokoro (2022) examined the use of assessment methods in implementing the CBC in public secondary schools in Arumeru District. The study, which adopted a cross-sectional survey design, involved 111 teachers from nine secondary schools, selected using stratified sampling. Data were collected through semi-structured questionnaires. The findings indicated that most teachers lacked training in CBC-recommended assessment methods, particularly in using rating scales, rubrics, checklists, portfolios, and practical tasks. Instead, teachers predominantly relied on oral examinations, written tests, text analysis, and essays to assess students.

Within the Kenyan context, Momanyi and Rop (2020) investigated teachers' capacity to develop instructional tools, highlighting difficulties in preparing schemes of work aligned with the Competence-Based Curriculum. Their findings aligned with those of KICD's evaluation report, which underscored teachers' lack of preparedness in developing essential CBC-related documents. However, their study primarily focused on lesson planning and did not comprehensively examine the availability and effectiveness of other curriculum-related documents. Similarly, Owuor (2022) looked at how the CBC was put into practice in public and private primary schools in Mbita Sub-County, showing that even though private school teachers had better access to curriculum-related documents, they did not receive enough training to understand and use them properly, which could make it harder to implement the CBC. These studies highlight a critical gap in the role of curriculum-related documents in supporting teachers in CBC adoption, particularly in pre-primary education. Addressing these gaps, the present study focused on evaluating the influence of curriculum-related documents on CBC implementation in pre-primary schools in Mbeere South Sub-County.

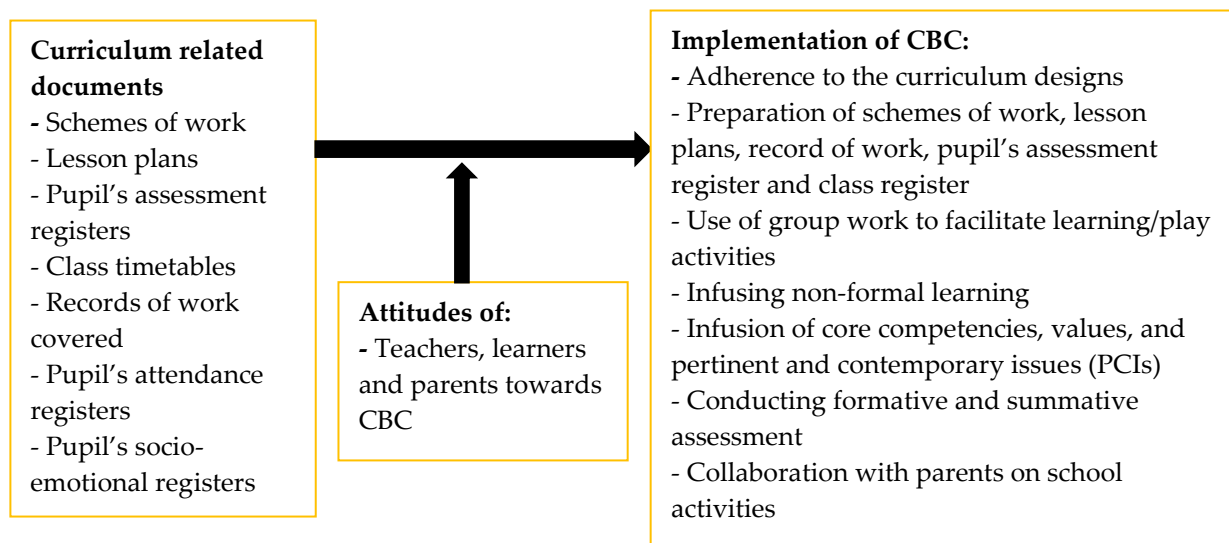
Wandera (2019) examined the influence of teacher preparedness on pupils' performance in the Kenya Certificate of Primary Examination (KCPE) English subject in Machakos County public primary schools. Findings showed that the majority of the teachers out of the 134 sampled for the study did the needed curriculum-related

documents. All of them (100%) used the appropriate syllabus, 126 (94%) had updated schemes of work, 122 (91%) had lesson plans for all lessons taught, 128 (96%) had records of work, and 84 (66%) had progress records and discipline records. Furthermore, the study revealed that the availability of professional documents influenced learners' performance in the KCPE English exam. Moreover, the majority of them not only had updated schemes of work most of the time but also used them to prepare for teaching. According to Mugo (2021), curriculum documents are guidelines adopted by learning institutions to scale up the effective implementation of a curriculum. Furthermore, Adegbenro (2021) elaborates that curricula, syllabi, schemes of work and lesson plans are policies and documents necessary for effective teaching to occur at any level of the educational system. Thus, these policies and documents include pre-primary school curriculum designs, schemes of work, lesson plans, records of work and pupils' progress records, among others.

2.3 Conceptual Framework

Figure 1 presents the diagrammatic illustration of the relationship between school factors and the implementation of CBC.

Figure 1.2: Conceptual Framework (CLTC Knowledge hub, 2018)



3. Methodology

3.1 Study Area

This study was carried out in Mbeere South Sub-County, Embu County. This locale was purposefully selected because implementation of CBC was reported to be a challenge in primary schools (Educationtrends, 2021). Therefore, it was important to establish the present status of implementation of the said curriculum in the sub-county since the year 2021, and also in which way school factors influenced its accomplishment in pre-primary schools.

3.2 Research Design

Correlational research design was used in the current study because it allows for the establishment of the relationship between the independent and dependent variables. Furthermore, it allowed the use of mixed-methods research to collect qualitative and quantitative data through questionnaires, interview schedules, and observation checklists. The various methods in data collection provided the potential for triangulation from comprehensive data collected, thus providing an in-depth understanding of the problem, leading to conclusive results as indicated by Creswell (2016).

3.3 Study Population

The study population included household heads selected from a pool of 6,286 households living in 66 ODF-certified villages across three specific wards (Marama Central, West, and Marenzo-Shianda) that went through the CLTS implementation process within Butere Sub-County. This area had a total population of 139,780 residents. Alongside this, the study involved six Key Informant Interviews, involving three public health officers and three community leaders, representing elected officials, youth, and women from these wards.

The target population comprised all 254 private and public pre-schools/ head teachers (218 & 36) and 508 pre-primary school teachers (436 & 72) respectively in Mbeere South Sub-County, Kenya (Ministry of Education, 2019).

3.4 Sample of the Study

The multi-stage sampling technique was carried out in four levels, respectively, as shown below; Purposive sampling was used to select Mbeere South Sub-county, Embu, as the study locale. stratified sampling of 254 private schools and 36 public schools was done. Thereafter, 28 (11%) pre-schools (24 out of 218 private and 4 out of 36 public) were randomly selected by rotation, where every 9th pre-school was selected until the desired sample size of 28 pre-schools (24 private and 4 public) was achieved ($254/28 = 9$). Head teachers in the above 28 schools were purposively selected because them being in the sampled schools. As for preschool teachers, 56 (11%) of them (48 from private and 8 public) or 2 per school out of the 508 preschool teachers were selected purposively or randomly, where there were more than 2 teachers. The study's sample size distribution is shown in Table 1.

Table 1: Sample Distribution of Pre-primary schools/ Head-teachers and Teachers

School category	Targeted pre-schools/ head-teachers	11% Sample size of pre-schools/ head-teachers	Targeted PP1 & PP2 Teachers	11% Sample size of PP1 & PP2 Teachers
Private	218	24	436	48
Public	36	4	72	8
Total	254	28	508	56

3.5 Tools and Techniques for Data Collection

A questionnaire was used to collect qualitative and quantitative data from pre-primary school teachers through both closed and open-ended questions. A semi-structured interview schedule was used to collect data from head teachers, which provided a comprehensive understanding of how availability and adequacy of school curriculum documents, learning materials/resources and infrastructural school factors influence implementation of CBC in pre-primary schools. An observation checklist was used by the researcher to collect information detailing the extent to which CBC is being implemented in pre-schools. Data collection took at least 2 months (2 days per school). The researcher started with observations to gather information on the extent to which CBC was being implemented. Face-to-face interviews with head teachers were then followed in order to collect information on school factors influencing the implementation of CBC in pre-primary schools. Finally, the researcher distributed the questionnaires to the teachers to establish to what extent school infrastructure, learning resources, as well as curriculum designs and other related documents influenced curriculum implementation of CBC in pre-primary schools. The questionnaires were later collected after two days.

3.6 Reliability and Validity of the Research Tools

Content validity was used to ascertain whether the research instruments measure what they are supposed to. This was achieved by going through all items in the instruments to ensure that all variables are adequately covered and that they are clear to respondents. Peer debriefing and expert judgment were also sought from the researcher's supervisor in scrutinising how accurately each question measures the construct under study, to ensure they yield the expected results. The split-half method was utilized to randomly divide the teacher questionnaire and interview items into two equal parts, and Spearman correlation (ρ) was used to correlate the scores in order to establish the reliability of this instrument. A reliability coefficient of 0.7 and above was considered sufficient to judge the reliability of the questionnaire.

3.7 Data Analysis

Qualitative data were thematically analysed and then presented in narrative form. Quantitative data, however, were summarized using descriptive statistics such as percentages and frequencies. For inferential data, the Chi-square test was used to test whether or not significant relationships exist between the availability of curriculum-related documents and the implementation of CBC in pre-schools.

3.8 Ethical Considerations

All participants were informed about the general purpose of the study and the confidentiality measures that were taken, and then were given a chance to ask questions about any concerns they may have, and they received honest answers. After this, they were issued a consent form to sign, indicating their willingness to voluntarily participate

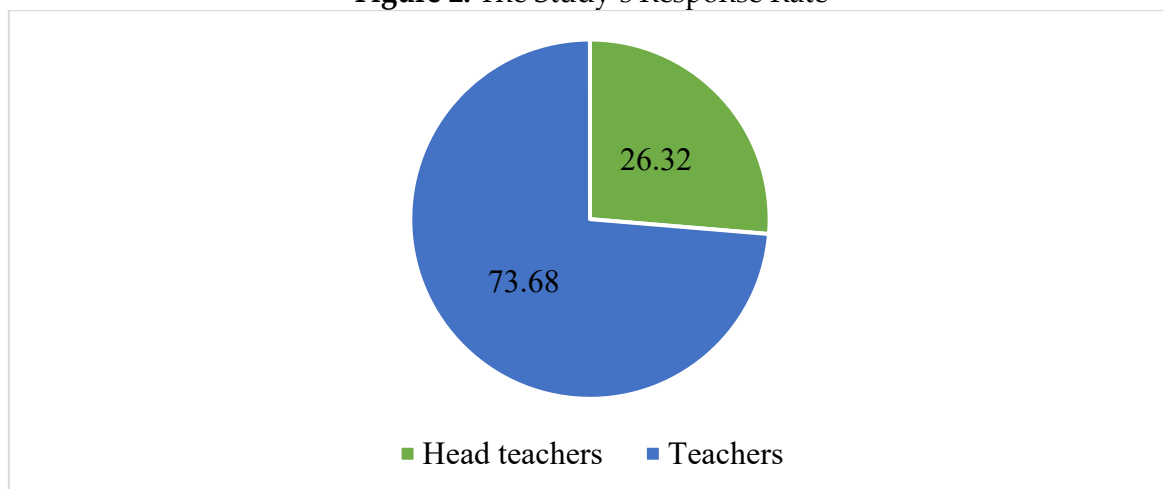
in the study. Additionally, participants were given the choice to withdraw from the study if they needed to do so.

4. Findings and Discussions

4.1 Response Rate

Participants' response rate from teachers and headteachers was sought, as Figure 2 shows. Questionnaires were administered to a sample of 56 (100%) teachers and 20 head teachers out of 28, thus, a total sample of 76 participants. This implies that all 56 questionnaires for teachers were filled out and returned within the scheduled time. On the other hand, out of the 28 head teachers sampled for the interview, eight (8) of them could not be reached due to unavoidable circumstances. The overall response rate was 90.4%, which was considered sufficient for making conclusions and generalization of findings with respect to the target population.

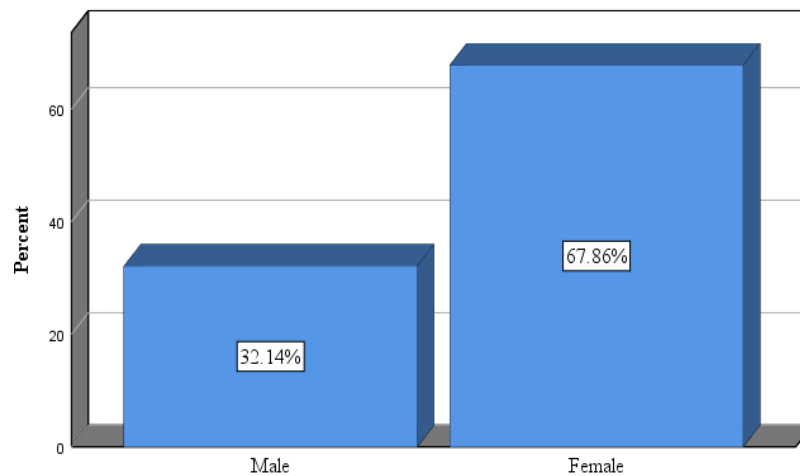
Figure 2: The Study's Response Rate



4.2 Demographic Information

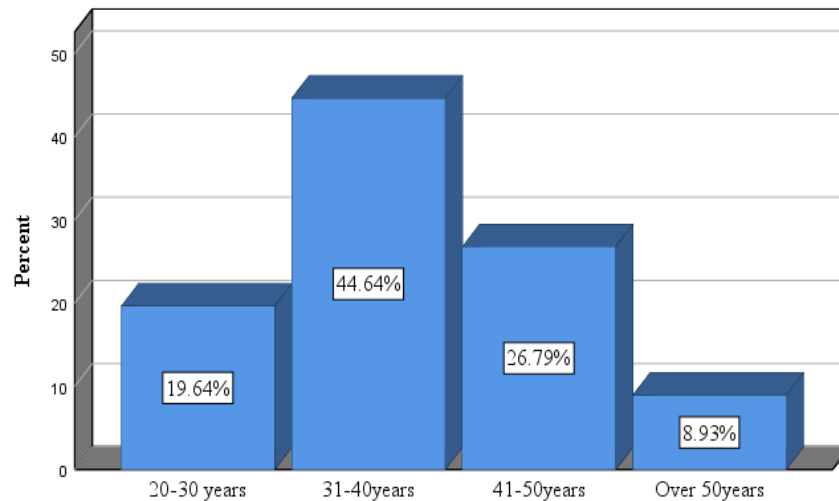
The distribution of the respondents with reference to gender is as shown in Figure 3.

Figure 3: Percentile Distribution of Teachers by Gender



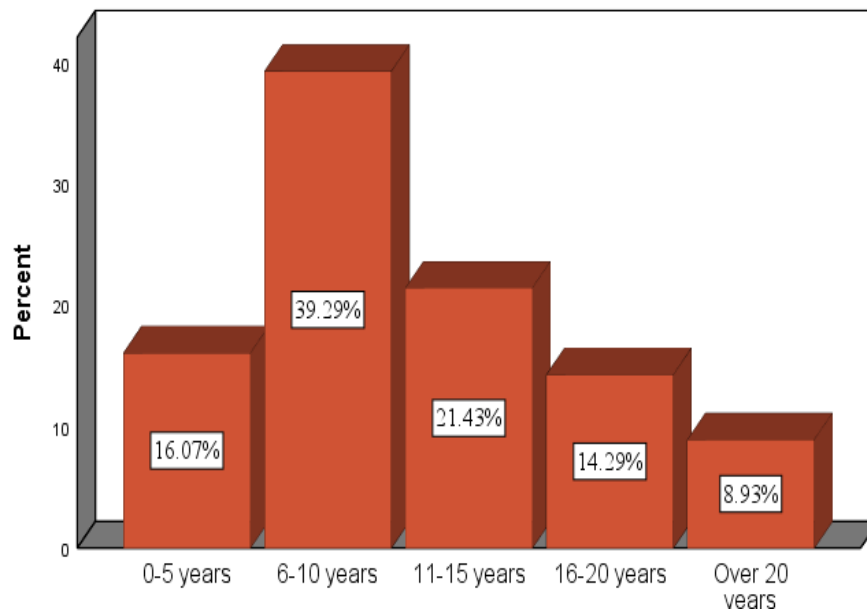
As shown in Figure 3 there were 8 (67.8%) female teacher participants, while 18 (32.14%) were male. This finding implies that most teachers in pre-primary schools are female; as such, the majority of the respondents who took part in the study were female teachers.

Figure 4: Percentile Distribution of Teachers by Age



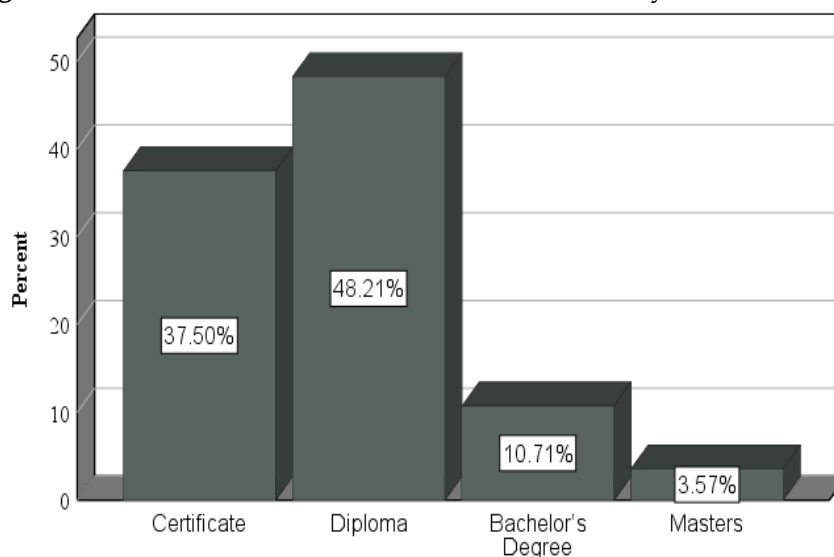
As shown in Figure 4, slightly less than half of the teachers – 25 (44.64%) – were between the age of 31-40 years, followed by 15 (26.79%) aged between 41-50 years, 11 (19.6%) between the age of 20-30 years and the least 5 (8.93%) were over 50 years.

Figure 5: Percentile Distribution of Teachers by Teaching Experience



From figure 5 above, the highest proportion of participants, 22 (39.29%), had 6-10 years teaching experience, with the least having 21 years and above at 6.3%. The study findings, therefore, indicate that the sample under study was distributed across the spectrum in terms of years of experience.

Figure 6: Percentile Distribution of Administrators by Level of Training



Data presented in Figure 6 shows that 27 (48.2%) of the teachers had attained diploma qualifications, 21 (37.5%) had a certificate in education, 6 (10.2%) had a Bachelor's degree in education, and at least 2 (3.6%) had a Master's in education.

4.3 Influence of Curriculum-Related Documents on Implementation of CBC

This study aimed to find out the influence of curriculum-related documents on the implementation of CBC in Mbeere South Sub-County pre-primary schools. To achieve this objective, the researcher looked into the availability, adequacy and the appropriateness in the use of curriculum related documents including timetables, pupil's attendance register, schemes of work, lesson plans, records of work covered, pupil's assessment register and pupil's socio-emotional register by the use of teachers' questionnaires. The results are presented and discussed under the following sub-sections:

4.3.1 Availability of Curriculum-Related Documents

Availability was rated on a scale of 0 = Unavailable and 1 = Available. The findings were analysed descriptively and discussed in terms of percentage and frequency, as Table 2 indicates.

Table 1: Responses on Availability of Curriculum-Related Documents

	Available		Unavailable		Total	
	Freq	%	Freq	%	Freq	%
Schemes of work	36	64.3%	20	35.7%	56	100.0%
Lesson plans	42	75.0%	14	25.0%	56	100.0%
Records of work	41	73.2%	15	26.8%	56	100.0%
Pupil's assessment register	36	64.3%	20	35.7%	56	100.0%
Pupil's attendance register	51	91.1%	5	8.9%	56	100.0%
Pupil's socio-emotional register	31	55.4%	25	44.6%	56	100.0%

Data presented in Table 2 shows that the majority of the pre-school teachers under study had curriculum-related documents, including pupils' attendance register (91.1%), lesson plans (75.0%), records of work (73.2%) and schemes of work (64.3%). This is in line with the study by Nsengimana (2021) in Rwanda, which found that in order for schools to succeed in these curriculum-related activities, effective implementation guidelines or documents need to be available. Furthermore, teachers were asked to expound on the adequacy of these curricula-related documents, and Table 3 shows the results.

4.3.2 Adequacy of Available Curriculum-Related Documents

Adequacy was rated on a scale of 1 = Very Inadequate, 2 = Inadequate, 3 = Adequate 4 = Very Adequate. The findings were analysed descriptively and discussed in terms of percentage and frequency, as Table 3 demonstrates.

Table 2: Adequacy of Available Curriculum Related Documents

Item	Very Adequate		Adequate		Inadequate		Very Inadequate		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Copies of curriculum design	0	0.0%	5	8.9%	51	91.1%	0	0.0	56	100.0%
Adequacy of allocated time per curriculum area in class timetable	3	5.4%	6	10.7%	35	62.5%	12	21.4%	56	100.0%
Schemes of work -rate of completeness/ readiness by start of the term	9	16.1%	37	6.1%	10	17.9%	0	0.0%	56	100.0%
Completeness/readiness of lesson plans at the beginning of the day	12	21.4%	37	6.1%	7	12.5%	0	0.0%	56	100.0%
Completeness/readiness of records of work by the end of the week	9	16.1%	33	8.9%	14	25.0%	0	0.0%	56	100.0%
Rate of assessment per curriculum activity	7	12.5%	31	55.4%	18	32.1%	0	0.0%	56	100.0%
Attendance taking before the start of lessons	6	10.7%	39	9.6%	11	19.6%	0	0.0%	56	100.0%
Capturing altruistic/non-altruistic behaviours	3	5.4%	3	5.4%	33	58.9%	17	30.4%	56	100.0%

From data presented in Table 3, the majority 51(91.1%) of the teachers reported that copies of curriculum design were inadequate, 66.1% reported that schemes of work were not completed by the beginning of the day, and 62.5% claimed that the allocated time per curriculum area in class timetable was insufficient. Further findings showed that the rate of attendance taking before the start of lessons and assessment per curriculum activity was moderate at 69.6% and 55.5%. Moreover, 58.9% of the teachers reported that the pupils' socio-emotional registers, capturing altruistic and non-altruistic behaviours were inconsistent. This is in line with findings by Tahirsylaj and Wahlstrom (2019), who emphasize that curriculum-related documents are key to the implementation of the curriculum.

4.3.3 Appropriateness in the Usage of Available Curriculum-Related Documents

Appropriateness of use of the available curriculum related documents (timetable, pupil's attendance register, schemes of work, lesson plans, records of work covered, pupil's assessment register and pupil's socio-emotional register) was rated on a scale of 1 = Very inappropriate, 2 = Inappropriate, 3 = Appropriate, and 4 = Very appropriate through the use of teachers' questionnaires. The findings were analysed descriptively and discussed in terms of percentage and frequency, as Table 4 portrays.

Table 4: Responses on Appropriate use of Available Curriculum Related Documents

Document	Appropriateness in the usage of the curriculum documents									
	Very appropriate		Appropriate		Inappropriate		Very inappropriate		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Class timetable - appropriateness of use	4	7.1%	37	66.1%	7	12.5%	8	14.3%	56	100.0%
Schemes of work - appropriateness of use	7	12.5%	20	35.7%	13	23.2%	16	28.6%	56	100.0%
Lesson plans – appropriateness of use	9	16.1%	19	33.9%	15	26.8%	13	23.2%	56	100.0%
Records of work - appropriateness of use	8	14.3%	13	23.2%	16	28.6%	19	33.9%	56	100.0%
Pupil's assessment register - appropriateness of use in terms of content	5	8.9%	11	19.6%	20	35.7%	20	35.7%	56	100.0%
Pupil's attendance register - appropriateness of use in terms of content	6	10.7%	11	19.6%	20	35.7%	19	33.9%	56	100.0%

Data presented in Table 4 demonstrate that 31 (66.1%) of the teachers reported that they infrequently used class timetables appropriately. However, the appropriate use of schemes of work was frequent at 35.7%, lesson plans infrequent at 26.8%, records of work very infrequent at 33.9%, and the use of pupils' registers and attendance registers was equally infrequent at 35.7%. These findings imply that the slow implementation of the CBC in pre-primary schools under study could be attributed to the lack of appropriate usage of the curriculum-related documents by teachers. These findings are in line with those of Nombo (2022), which focused on uncovering challenges faced by teachers in utilizing the Competency-Based Curriculum. They revealed that schemes of work and lesson plans were insufficient as the majority of the teachers had inadequate knowledge and skills, as well as challenges in lesson planning and scheme of work preparation, hindering their ability to effectively use instructional materials and pedagogy. The findings also concur with those of Momanyi and Rop (2020), a study that assessed teachers' capacity to prepare instructional tools, revealing challenges in preparing schemes of work conforming to CBC. Moreover, these findings are supported by those of Mugo (2021) which revealed that if documents such as curriculum designs either in hard or soft copies, schemes of work, lesson plans, records of work and pupil's progress records are unavailable for reference or inappropriately utilized, it may be difficult to execute the implementation of the desired goals of a programme like CBC.

4.3.4 Teachers' Extent of Embracing CBC Aspects in Lesson Facilitation

Teachers were asked to rate the extent to which they were able to embrace the following learning aspects as per the required CBC curriculum related documents (timetables, pupil's attendance register, schemes of work, lesson plans, records of work covered, pupil's assessment register and pupil's socio-emotional register) for facilitation of

lessons. The learning aspects were rated on a scale of 1.0 = Very Low extent, 2.0 = Low extent, 3.0 = High extent, and 4.0 = Very high extent, as Table 5 indicates.

Table 3: Teachers' Ratings on Embracing CBC Documented Learning Aspects

Implementation Aspect	Frequency of Embracing CBC								Total	
	Very High Extent		High Extent		Low Extent		Very Low Extent			
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Infusion of CBC core competencies during different activity areas	3	5.4%	9	16.1%	19	33.9%	25	44.6%	56	100.0%
Infusion of desirable values during different activity areas	3	5.4%	11	19.6%	20	35.7%	22	39.3%	56	100.0%
Infusion of PCIs during different learning activities	2	3.6%	10	17.9%	12	21.4%	52	57.1%	56	100.0%
Linking concepts across the different curriculum areas and activity areas	4	7.1%	8	14.3%	20	35.7%	24	42.9%	56	100.0%
Use of group learning activities in different activity areas	4	7.1%	8	14.3%	20	35.7%	24	42.9%	56	100.0%
Encouraging home-school partnerships	4	7.1%	8	14.3%	21	37.5%	21	41.1%	56	100.0%

Data presented in Table 5 demonstrate that 52 (57.1%) of the teachers reported that infusion of pertinent contemporary issues (PCI's) during different learning activities, 25 (44.6%) of the teachers indicated that infusion of CBC core competencies during different activity areas was very low, linking concepts across the different curriculum areas activity areas and use of group learning activities during different activity areas were rated as very low by 42.9% of the participants. Further findings showed that 37.5% of the teachers rated encouraging home-school partnerships, and infusion of desirable values during different activity areas as low as 35.7%. The low-rated implementation of CBC learning aspects implies that teachers find it challenging to translate the aspects to the intended practice attributed to basic skills and knowledge. This finding is supported by those of Owuor (2022) who conducted a related study in Kenyan public and private primary schools in Mbita sub-county, which showed that teachers sampled from both categories of schools were not adequately trained to implement CBC even though the latter appeared better equipped in terms of availability of curriculum related documents. This training on CBC approaches would provide them with the different roles of guide and shift instructions, where learners are to be given adequate practice to enhance the attainment of competence.

4.3.5 Extent to Which Available Curriculum Related Documents Influenced Implementation of CBC

A total of 28 pre-schools were observed using an observation checklist to capture the extent to which curriculum related documents influenced the implementation of CBC in pre-primary schools in Mbeere South Sub-County, Kenya. The implementation

indicators were rated on a scale of 1 = Low, 2 = Moderate, and 3 = High. The findings were analysed descriptively and discussed in terms of mean and standard deviation as Table 6 shows below.

Table 4 : Responses on the Extent to which CBC was
Implemented as per Available Curriculum Related Documents

Implementation aspect	No. of schs observed	Range	Mean	Std. Deviation
Infusing non-formal learning	28	2	1.64	.826
Infusing PCI's during learning	28	2	1.71	.854
Infusing of core competencies during learning	28	2	1.82	.863
Conducting formative and summative assessments	28	2	1.89	.832
Learners working in groups	28	2	2.00	.609
Engaging parents in school activities	28	2	2.04	.793
Valid N (list-wise)	28			

Data presented in Table 6 shows that the mean scores obtained by the observation checklist on the extent to which CBC was implemented in pre-schools as per the available curriculum-related documents ranged from 1.64 to 2.04, with a standard deviation of 0.826 and 0.793. The highest-scoring statements were 'Engaging parents in school activities' and 'Learners working in groups'. It is noted that all the implementation aspects as per the available curriculum-related documents had low scores, as all mean scores were less than 3.0 (mean<3.0). These findings imply that the implementation of CBC was still below expectations, as the learners were required to show mastery of competencies attributed to the preparedness of teachers in pre-schools. Nonetheless, the implementation of educational reforms requires learners to demonstrate mastery of competencies where application of knowledge, skills and attitude was assessed before they could progress further.

4.3.6 Chi-Square Results for Influence of Curriculum-Related Documents on Implementation of CBC

In order to determine whether or not there was a significant influence between curriculum related documents and implementation of CBC, a Chi-square test of association was used to test data on a cross-tabulation table for the two categorical variables, which were: availability of adequate curriculum related documents, and implementation of CBC; which had two possible values of observed and expected counts under the assumption that the predicted frequency was true for the null hypothesis. Table 7 provides the results.

Table 5: Chi-Square Test for HO1 on Availability of Curriculum Related Documents

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	7.674 ^a	2	.022
Likelihood Ratio	7.690	2	.021
Linear-by-Linear Association	.074	1	.785
N of Valid Cases	56		
a. 4 cells (66.7%) have expected count less than 5. The minimum expected count is 2.14.			

From Table 7, the Pearson Chi-Square test gave a statistical value of 7.674 at a degree of freedom of 2 ($\chi^2 = 7.674$, $DF = 2$) and asymptotic significance (2-sided) value of $P = .022$. When the calculated value of ($\chi^2 = 7.674$, $DF = 2$) is compared to the values in the Chi-square distribution table at a significance level of $P = 0.05$, the exact Chi-square ($\chi^2 = 5.99$, $DF = 2$) is less than the calculated chi-square. This implies that there is a significant association between the availability of adequate curriculum-related documents and the implementation of CBC, $P < 0.05$. These findings in the present study are in line with those of Mashekwa (2019) in Zambia, which showed that the implementation of CBC was mainly challenged by a number of issues, including a lack of availability of curriculum-related documents and specifically lesson plans. Also in support of this finding, Kanyonga et al. (2019) in Tanzania revealed that the success in implementation of Curriculum Based Learning (CBL) in technical colleges had been hampered by ineffective policies and inadequate human as well as material resources, among others.

During the interviews in the present study, teachers were asked to suggest what they would say about the effectiveness of the curriculum-related documents on the implementation of CBC in pre-schools. A participant in school C responded that:

“Effective implementation of CBC through maximum cooperation among pupils, parents and teachers improves innovative skills, develops multiple competencies and enables students to find solutions to problems. Through exhibitions and presentations, there would always be enhanced cooperation; creation of self-confidence and group support in learners for further development and excellence in their academic endeavours.” (Female participant, school C).

The above findings are in harmony with quantitative findings by Nsengimana (2020), which indicated that there should be full cooperation among the teachers, among the students and between the teachers and students in order to bring to reality the psychomotor, creative and innovative skills. All students should participate actively in practical activities in all science subjects such as physics, chemistry and biology. This will enable students to expand their worldview and unveil their talents as they involve themselves in measuring samples using weighing instruments such as beam balances and spring balances. They gain confidence as they interact with chemicals and apparatus in mixing and creating new samples in the laboratories.

Another head teacher noted that:

"Sometimes teachers were supposed to sing in an activity where a song was actually provided, but there were no musical notes for guidance. Neither has anybody trained them on how to generate notes for a song."

The head teachers were further asked to judge on teachers' ability to prepare CBC-compliant lesson plans. A participant from school E said:

"Some of these activities were quite demanding, and the time allocated was inadequate. For example, in teaching and assessing motion in movement and creative activities, the time allocated was only 35 minutes, and this was insufficient to conduct an assessment where the classes time ended before one could assess all the children."

During the interviews, administrators in the current study were asked to state whether there were any learning areas their pre-school teachers found difficult to facilitate. Some of them raised pertinent issues pertaining to CBC. One of the head teachers from school D expressed that:

"There was a high likelihood of mistaking peer pressure for talent. This was because there are learners who would exhibit a talent because of the company they keep, that is, their friends. However, when gauged against their friends, these talents seem to diminish or pale into insignificance. Therefore, there is a need for school policies to link the CBC implementation with the effort of stakeholders" (Female head teacher)

The above finding implies that there is a danger of erroneously placing or categorising children during talent identification, particularly if it is done too early. This is because young children are fond of experimenting with diverse talents quite unconsciously, and without necessarily being keen on developing them. Also, at a young age, there are masked talents that would take time to be identified and nurtured. In addition, not all talents can be discovered at the school level. This finding is supported by those of Kosgei (2015), which showed a strong relationship between school policies and curriculum implementation.

5. Conclusions and Recommendations

5.1 Conclusion

The implementation of CBC was still below the expectation, which was attributed to infrequent use of class timetables, schemes of work, lesson plans and records of work. It can be concluded that there was a significant association between the availability of adequate curriculum-related documents and implementation of CBC, as the p-value was less than 0.5.

5.2 Recommendations

- 1) The study recommended that the implementation of CBC was still below expectation, which could be attributable to infrequent use of curriculum-related documents due to the fact that teachers are not fully prepared for the implementation of the curriculum. The Kenya Institute of Development should therefore intensify training for teachers to accelerate their capacity in terms of the appropriate use of teaching and learning resources, including the ICT course books and summative assessment.
- 2) Despite the fact that the key curriculum implementers are teachers, some schools under the current study recorded low CBC implementation levels. It is therefore recommended that teachers should be highly involved in the curriculum change process.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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