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Beyond the Classroom: Assessing Community-Based Learning Effectiveness and Household Income Influencing in CBC Integration in Primary Schools, Rift Valley Region

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Abstract: *This study examined the effectiveness of integrating community-based learning (CBL) into the Competency-Based Education (CBE) curriculum in public primary schools in the Rift Valley Region, Kenya, and its relationship with household income levels. A descriptive-correlational research design was employed involving 847 participants comprising learners, teachers, head teachers, and Quality Assurance and Standards Officers. Data were collected using questionnaires, interviews, observation checklists, document analysis, and figures. Quantitative data were analyzed using descriptive statistics and Spearman's correlation, while qualitative data were analyzed thematically. Findings revealed moderate integration of CBL across all learning areas. Home Science/Agriculture recorded the highest integration levels, followed by Physical and Health Education, Science and Technology, Mathematics, English Language, and Social Studies. Teachers used locally available materials, demonstrations, group work, storytelling, field visits, hygiene activities, and problem-solving tasks to link learning with community experiences. Observation findings confirmed learners' active participation in cooking, agriculture, hygiene and sanitation, comm unity clean-ups, and science model construction using local materials, indicating strong experiential learning. Spearman's correlation results showed no statistically significant relationship between household income levels and CBL integration across subjects. However, significant positive inter-subject correlations indicated a systemic cross-curricular implementation pattern. The study concludes that CBL integration is influenced more by institutional and pedagogical factors than household income. It recommends strengthening teacher capacity, school–community partnerships, and resource support to enhance effective implementation for improved learner outcomes in primary education in Kenya's competency-based education system context overall implementation.*

Keywords: *Community-Based Learning, Competency-Based Education, Experiential Learning, Curriculum Integration, Primary Schools.*

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1. Introduction

Education systems have increasingly shifted towards Competency-Based Education (CBE), a learner-centered approach that emphasizes the development of practical skills, values, and competencies such as critical thinking, creativity, collaboration, and communication rather than rote memorization. Within this framework, Community-Based Learning (CBL) has emerged as a key pedagogical approach that connects classroom learning with real-life community experiences through service learning, experiential activities, and community engagement, thereby enhancing the application of knowledge in authentic contexts (UNESCO, 2015; Mooney & Edwards, 2001).

Countries such as the United States, Canada, and France have integrated CBL into their education systems by

linking schools with community organizations, environmental initiatives, and local authorities to promote experiential and contextualized learning. Similarly, in Africa, countries like South Africa, Zambia, and Rwanda have incorporated community resources and indigenous knowledge systems into teaching and learning, strengthening learner engagement and cultural relevance. However, despite these advancements, challenges such as inadequate resources, limited teacher preparedness, and unequal access to community opportunities continue to hinder effective implementation, particularly in rural and marginalized areas (Ituma, 2022).

In Kenya, the Competency-Based Education curriculum introduced through the Kenya Institute of Curriculum Development (KICD) aims to address weaknesses of the former 8-4-4 system by promoting learner-centred pedagogy, continuous assessment, and real-life application of knowledge through community engagement. Although efforts have been made to integrate Community-Based Learning through collaboration with parents, local leaders, and institutions, implementation in primary schools remains constrained by inadequate infrastructure, insufficient teacher capacity, weak school–community linkages, and underutilization of community resources. Against this backdrop, the Rift Valley region presents a unique context for examining the effectiveness of CBL due to its diverse socio-economic and cultural characteristics, yet limited empirical evidence exists on its implementation and impact. This study therefore seeks to evaluate the effectiveness of Community-Based Learning within CBE in public primary schools in the region to inform improved practice and enhance learner outcomes.

1.2 Research Question

1. How effective is the integration of community-based learning into the competency-based education in public primary schools within the Rift Valley Region in terms of:
   i. English Language
   ii. Mathematics
   iii. Social Studies
   iv. Home Science-Agriculture
   v. Physical and Health Education
   vi. Science and Technology
2. Is there a significant relationship between household income levels and the extent of community-based learning integration in primary schools in Rift Valley region?

2. Literature Review

2.1 Effective Integration of CBL into CBE

Effective integration of Community-Based Learning (CBL) into Competency-Based Education (CBE) emphasizes experiential, contextual, and learner-centered approaches that connect classroom learning with real-life community experiences. Current practices in CBL include place-based learning, project-based learning, service-learning activities, and culturally responsive instruction that utilize local environments and community knowledge to enhance competency acquisition. According to Luo and Lau (2020), Community-Based Art Education (CBAE) enables learners to engage with local artistic and cultural practices, strengthening creativity, critical thinking, and cultural identity. Similarly, place-based learning and community projects encourage learners to address local environmental, social, and economic issues while developing problem-solving skills and civic responsibility (Rock, 2021). Through activities such as field trips, community service, school gardening, and local entrepreneurship projects, learners apply classroom knowledge in practical settings, thereby enhancing mastery of competencies emphasized in CBE.

Another important aspect of effective CBL integration is the promotion of learner participation, collaboration, and critical reflection. Mitra and Serriere (2012) note that involving learners in decision-making and leadership roles within community projects increases motivation, civic engagement, and democratic participation. Collaborative learning activities such as group projects, debates, role-playing, and inquiry-based tasks help learners develop communication, teamwork, and leadership skills that are essential in competency-based curricula. Furthermore, pedagogical approaches such as flipped learning, problem-based learning, and experiential learning create opportunities for active learner engagement and practical application of knowledge across disciplines (Fiol-Roig, 2020; Ullah & Anwar, 2020). These strategies shift the teacher's role from information provider to facilitator, enabling learners to become active participants in their own learning processes while nurturing creativity, innovation, and independent thinking.

Effective CBL integration also depends on strong partnerships between schools, families, and community stakeholders. Jenkins and Clarke (2020) argue that collaboration between schools and communities creates supportive learning ecosystems that align educational goals with local needs and realities. Community members, including local professionals, artisans, healthcare providers, and cultural leaders, provide contextual resources and expertise that enrich the curriculum and make learning more relevant. Health-promoting schools, after-school programs, and community outreach initiatives further demonstrate how schools can function as centers of influence that integrate academic learning with community

development and social responsibility (Milligan & Berta, 2021). Such partnerships support holistic learner development by fostering values such as environmental stewardship, ethical responsibility, and respect for cultural diversity while enhancing academic achievement and social competence.

Globally, the adaptation of Community Service Learning (CSL) and Project-Based Learning (PBL) models has strengthened the implementation of CBL within CBE frameworks by promoting global citizenship, social justice, and intercultural understanding. Studies by Febry et al. (2024) and Clinton and Beckford (2022) indicate that integrating service-learning activities into education helps learners connect local actions with broader global challenges while developing problem-solving, collaborative, and leadership skills. Experiential activities such as outdoor learning, nature-based programs, science investigations, and community engagement projects enhance cognitive, emotional, and social development while preparing learners to become responsible citizens capable of addressing societal challenges. Additionally, integrating morality, civic education, and the rule of law into CBL activities through storytelling, observation, reflection, and community participation promotes ethical awareness and responsible behavior among learners (Li, 2020; Kerr, 1999). Consequently, effective integration of CBL into CBE not only enhances academic competencies but also prepares learners for active participation in society and lifelong learning.

3. Methodology

The study adopted a descriptive-correlational research design to examine the effectiveness of integrating Community-Based Learning (CBL) into Competency-Based Education (CBE) in public primary schools in the Rift Valley region of Kenya. The descriptive design was appropriate as it enabled the researcher to systematically describe the extent to which CBL is implemented across selected learning areas, namely English Language, Mathematics, Social Studies, Home Science-Agriculture, Physical and Health Education, and Science and Technology, without manipulating variables. The study also observed the relationship between household income levels and the extent of community-based learning integration in primary schools in Rift Valley region. The target population comprised Sub-County Quality Assurance and Standards Officers, head teachers, teachers, and Grade Six learners from selected public primary schools in the Rift Valley region. Data were collected using structured questionnaires, interview schedules, observation checklists, and document analysis guides aligned to the six learning areas under investigation. Quantitative data were analyzed using descriptive statistics, specifically means and standard deviations, to determine the level of effectiveness of CBL integration across subjects, while qualitative data from interviews, observations, and documents were analyzed thematically to provide deeper contextual understanding and triangulate the findings. Validity and reliability of the research instruments were ensured through expert review, pilot testing, and Cronbach's alpha coefficient. Ethical considerations were strictly observed throughout the research process to safeguard participants' rights and ensure the integrity and credibility of the study. Prior to data collection, institutional approvals were obtained from the relevant university ethics committee and authorized education offices, including permission from county and sub-county education authorities as well as school administrations. This ensured that the study complied with established research governance procedures and operated within acceptable academic and administrative frameworks.

Informed consent was obtained from all participants after they were adequately briefed on the purpose, objectives, procedures, potential benefits, and any minimal risks associated with the study. Participation was entirely voluntary, and respondents were informed of their right to decline participation or withdraw at any stage without facing any form of penalty or disadvantage.

Confidentiality was strictly maintained by ensuring that all collected data were used solely for academic purposes and were accessible only to the researcher and authorized supervisors. No personal identifiers were included in data collection instruments, analysis, or reporting, thereby preventing the tracing of responses back to individual participants or institutions. Anonymity was further reinforced by using codes instead of names for respondents and schools during data analysis and presentation of findings.

All data were securely stored, both in digital and physical formats, with restricted access to prevent unauthorized use, loss, or manipulation. These measures collectively ensured compliance with ethical research standards while enhancing trustworthiness, credibility, and reliability of the study findings.

4. Results and Discussion

Effective Community-Based Learning Integration within Competency-Based Education

Research Question 1. How effective is the integration of community-based learning into the competency-based education in public primary schools within the Rift Valley Region in terms of:

- English Language
- Mathematics
- Social Studies

- Home Science-Agriculture
- Physical and Health Education
- Science and Technology

To address this question, the researcher used descriptive statistics where means and standard deviations of the responses were used to summarise and describe the results. Respondents were asked to indicate their level of English Language agreement on a scale of 1 to 4, with 1 representing strongly disagree, 2 representing disagree, 3 representing agree and 4 representing strongly agree. The mean scale was interpreted in a range of 1-4 where 1.00 – 1.49 strongly disagree 1.50 – 2.49, disagree, 2.50 – 3.49 agree and 3.50 – 4.00 strongly agree.

Table 1: Effective Integration of Community-based Learning in English

Descriptive Statistics

Respondents		N	Mean	Std. Deviation
Learners	We write stories about things learned in our community.	245	3.14	.73
	Our teacher invites people to speak to us in English about local issues e.g., oral traditions and folktales	245	2.87	.85
	I use English to talk about what I see or do in my village	241	2.66	.90
	We read texts that are about people or places we have visited	243	2.93	.84
	We are given group tasks to solve problems from our community	243	3.06	.85
	I can explain community problems and solutions using English	243	2.93	.86
	Average	**243**	**2.93**	**0.84**
Teachers	Pupils write stories about things learned in their community.	208	3.15	.49
	We invite people to speak to pupils in English about local issues e.g., oral traditions and folktales	208	2.81	.72
	Pupils use English to talk about what they see or do in their villages	208	2.99	.75
	Pupils read texts that are about people or places they have visited	200	3.14	.60
	Pupils are given group tasks to solve problems from their community	208	3.25	.64
	Pupils can explain community problems and solutions using English	208	2.87	.75
	Average	**207**	**3.04**	**0.66**

The findings show that learners agreed that community-based language activities are integrated into English learning, with an overall mean of M = 2.93, SD = 0.84, while teachers reported a slightly higher overall mean of M = 3.04, SD = 0.66 which falls within "agree" rating, suggesting that teachers perceive stronger implementation than learners experience. Activities such as writing stories about community experiences was rated "agree" being the highest among learners(M = 3.14, SD = .73; teachers rated the same item at "agree" but was the second highest (M = 3.15, SD = .49) and earners agreed with the statement "giving learners group tasks to solve community problems" which was the second highest (M = 3.06, SD = .85; teachers also agreed on the same item rating it the highest (M = 3.25, SD = .64) were consistently affirmed by both groups and reinforced by documentary analysis, where schemes of work, assessment fabrics, and lesson plans frequently included story writing, group projects, and tasks anchored in local contexts. Head teachers explained that these activities were common because they required minimal resources and fitted well within CBE expectations. However, activities requiring stronger school–community interaction showed lower means and larger standard deviations, such as inviting community members to speak in English (learners M = 2.87, SD = .85; teachers M = 2.81, SD = .72) and using English to discuss village experiences (learners M = 2.66, SD = .90; teachers M = 2.99, SD = .75), all falling within "agree" rating level therefore reflecting inconsistent implementation across schools.

This pattern was supported by meeting minutes and communication logs derived from documentary analysis, which showed sporadic discussions on community partnerships, and by training records, which indicated that although teachers received CBE training, follow-up actions on integrating community experts were limited. The literature affirms these disparities, noting that effective CBL requires sustained community involvement, cultural alignment, and availability of resource persons comfortable communicating in English (Nkya & Huang, 2019; Jenkins & Clarke, 2020). Furthermore, although learners moderately agreed that they could explain community problems and solutions in English (M = 2.93, SD = .86), the relatively high variability reflects underlying linguistic challenges, as also emphasized by Head teachers in their interview reports. Head teacher K1, noted, *"Most of our learners understand the issues affecting their community, but when it comes to expressing them in English, they struggle and often switch back to their mother tongue."* Head teacher K3, remarked, *"In rural settings, learners are more comfortable discussing community matters in local languages because that is what they use*

daily at home." Similarly, Head teacher K2, observed, *"Even when prompted to use English, learners tend to mix it with Kiswahili or their local dialect when explaining complex ideas."* Head teacher K6 added, *"The challenge is not lack of ideas, but lack of adequate English vocabulary to articulate those ideas effectively."* Finally, Head teacher K5, summarized the situation by stating, *"Code-switching becomes a coping mechanism for learners whenever they are unsure of the correct English expressions."* These verbatim accounts reinforce the quantitative findings and highlight the persistent language barriers affecting effective communication.

Findings from the observation checklist corroborated the survey and documentary evidence. Classroom observations revealed that teachers frequently incorporated locally contextualized examples, storytelling tasks, and group discussions linked to community experiences. This practice was supported by a Head teacher K1, who stated, *"Teachers are trying their best to relate lessons to the learners' environment through stories and real-life examples."* However, direct engagement with community members was rarely observed, and no sessions during the observation period involved invited resource persons. As Head teacher K6, explained, *"We rarely invite community members due to logistical challenges and time constraints within the school program."* While learners actively participated in group activities, instances of code-switching to local languages were common when discussing complex community issues, particularly in rural schools, as echoed in the earlier interview responses. Additionally, displays of learners' community-based English projects were present in some classrooms but not consistently across all schools, indicating uneven implementation. This inconsistency was also highlighted by a Head teacher N1, who noted, *"Some teachers embrace community-based projects, but others have not fully integrated them into their teaching practices."*

Mathematics

Table 2: Effective Integration of Community-based Learning in Mathematics

Descriptive Statistics				
Respondents		**N**	**Mean**	**Std. Deviation**
Learners	We use real things from the community (like maize, money, or water) in math lessons.	2473.18	.79	
	I solve math problems about markets, farming, and homes around our school	2452.95	.93	
	Our teacher shows us how to measure things used in the community	2433.26	.75	
	We collect numbers or data from our surroundings (e.g., rainfall, animals).	2433.14	.83	
	We do group work using examples of things experienced from our community everyday life	2473.15	.86	
	Math helps me understand things that happen in my community	2453.09	.98	
	Average	**2453.12**	**0.86**	
Teachers	Pupils can use real things from the community (like maize, money, or water) in math lessons.	2043.38	.52	
	Learners solve math problems about markets, farming, and homes around their school	2082.99	.70	
	Teacher shows pupils how to measure things used in the community	2043.41	.56	
	Pupils collect numbers or data from our surroundings (e.g., rainfall, animals).	2083.25	.63	

Learners do group work using examples of things experienced from their community everyday life	2083.33	.54
Math helps Pupils understand things that happen in their community	2083.31	.60
Average	**2073.27**	**0.56**

The overall mean for learners (M = 3.12, SD = 0.86) and teachers (M = 3.27, SD = 0.56) falls within the *"agree"* range, reflecting a shared perception of positive integration of community resources and experiences into mathematics teaching. This integration is consistent with contemporary CBL practices highlighted in the literature, including experiential learning, problem-based learning, service-learning, and place-based education (e.g., UNESCO, 2019; Rock, 2021; Chepsiror, 2021; Febry et al., 2024). Classroom observations confirmed frequent use of locally available materials during demonstrations of measurement and arithmetic operations. Group-based activities and data-collection exercises were observed in several lessons, with learners actively handling real objects and recording numerical information from their surroundings. However, variability was noted in the extent to which teachers extended these activities into deeper analytical discussions linking mathematics to broader community issues.

Learners reported the highest mean (M = 3.26, SD = 0.75) on the statement, *"Our teacher shows us how to measure things used in the community,"* indicating that they generally agreed that mathematics lessons incorporate practical measurement of real-life community items. This finding is corroborated by teachers, who also rated the same item agreed (M = 3.41, SD = 0.56), suggesting consistency between learners' perceptions and teachers' self-reports regarding the practical application of community-based examples in teaching. Head teachers interviewed confirmed that teachers frequently demonstrate the measurement of local resources, such as agricultural produce, to contextualize mathematical concepts. Documentary analysis further supports this observation, showing that lesson plans and schemes of work explicitly include activities that require learners to engage with local materials. This aligns with the literature, particularly UNESCO (2019) and Chepsiror (2021), which emphasize that competency-based education (CBE) benefits from experiential learning activities that connect classroom content to real-life contexts, thereby enhancing learners' understanding and retention. Similarly, Sun and Xiao (2023) note that tactile experiences are crucial for developing foundational mathematical competencies, which resonates with the students' and teachers' reports.

Learners again agreed, "*We use real things from the community (like maize, money, or water) in math lessons"* with M = 3.18, SD = 0.79, while teachers rated this item slightly higher at M = 3.38, SD = 0.52. Both groups agreed that the use of tangible community resources facilitates comprehension of mathematical concepts. Head teachers highlighted that teachers regularly incorporate locally available resources into lessons, a practice supported by field observations and the review of assessment records where learners' competence is evaluated through community-based tasks. This practice reflects findings by Rock (2021) and Wallace et al. (2022), who observed that place-based learning and project-based learning promote ecological, social, and economic awareness among learners by engaging them in real-world problem-solving using local contexts. The documentary evidence, including co-curricular activity logs, further confirmed learners' participation in projects that bridge school learning with community realities, such as environmental clean-ups and local market surveys.

Learners also reported agreement with, *"We do group work using examples of things experienced from our community everyday life"* (M = 3.15, SD = 0.86) and *"We collect numbers or data from our surroundings (e.g., rainfall, animals)"* (M = 3.14, SD = 0.83). Teachers' responses mirrored these perceptions, with (M=3.33, SD = 0.54) and (M=3.25, SD = 0.63), respectively. Head teachers observed that group activities and data collection tasks are common in mathematics instruction, promoting collaboration and application of mathematical skills to real-world scenarios. Documentary analysis revealed assessment records and project documentation evidencing learners' involvement in data-gathering and problem-solving exercises. These findings are consistent with project-based learning (PBL) models discussed in Gakuru & Kibet (2018) and Febry et al. (2024), which emphasize hands-on, collaborative tasks to foster critical thinking, problem-solving, and social responsibility.

Other items, including *"I solve math problems about markets, farming, and homes around our school"* learners agreed with a mean (M = 2.95, SD = 0.93), teachers (M = 2.99, SD = 0.702) and *"Math helps me understand things that happen in my community"* learners (M = 3.09, SD = 0.98), teachers (M = 3.31, SD = 0.60), also indicated agreement, though with slightly lower means, reflecting moderate engagement in applied problem-solving activities. Head teachers noted that while contextual problems are regularly included, the frequency and depth of such exercises vary among teachers. Documents such as

schemes of work, lesson plans, and school reports confirmed these initiatives, demonstrating intentional integration of community contexts into the mathematics curriculum. These practices align with Mitra and Serriere (2012) and Jenkins and Clarke (2020), who advocate for student agency and collaboration with community members to enhance learning relevance, civic engagement, and social competence.

The data suggests that these pedagogical approaches not only enhance conceptual understanding and application of mathematics but also cultivate civic consciousness, collaboration, and reflective skills among learners, supporting the broader goals of competency-based education.

Social Studies

Table 3: Effective Integration of Community-based Learning in Social Studies

Descriptive Statistics				
Respondents		**N**	**Mean**	**Std. Deviation**
Pupils	We learn about the people and culture of our community	247	3.26	.78
	Our teacher invites elders or leaders to teach us about our area	245	2.50	.99
	We talk about real problems like roads, markets, or schools in our village	245	2.69	.94
	I know more about my county and how people live that I have learned from the local administrators	247	2.75	.90
	We visit places like historical sites to learn about history and government	243	3.26	.84
	We do group work about things we see or visited in our locality	247	3.14	.83
	Average	**246**	**2.93**	**0.88**
Teachers	Pupils learn about the people and culture of their community	208	3.47	.50
	Teacher invites elders or leaders to teach Pupils about their area	208	2.74	.60
	Pupils talk about real problems like roads, markets, or schools in their village	204	3.32	.54
	Pupils are having knowledge about their county and how people live that they have learned from Local Administrators	208	3.29	.45
	Pupils visit places such as historical sites to learn about history and government	208	3.22	.62
	Pupils do group work about things they saw or visited in the locality	208	3.26	.55
	Average	**207**	**3.21**	**0.54**

The overall mean for learners (M = 2.93, SD = 0.88) and teachers (M = 3.21, SD = 0.54) falls within the "agree" range, reflecting that community-based learning is moderately being integrated into social studies lessons. Learners agreed (M = 3.26, SD = 0.78) on the statement, "We learn about the people and culture of our community," indicating that they agreed that social studies lessons integrate knowledge about local people and cultural practices. This finding is corroborated by teachers, who rated the same item higher (M = 3.47, SD = 0.50), reflecting strong agreement that pupils are exposed to their community's culture. Head teachers interviewed confirmed that teachers regularly engage learners in discussions about cultural norms, traditions, and social practices. Documentary analysis further supports this observation, showing that schemes of work and lesson plans explicitly include community-centered activities. These findings align with Luo and Lau (2020) and Rock (2021), who emphasize that community-based learning enhances learners' understanding of heritage and promotes critical thinking through experiential and place-based education.

Learners also agreed with the item, "We visit places like historical sites to learn about history and government" (M = 3.26, SD = 0.84), suggesting that field visits are effectively used to link classroom content with real-world experiences. Teachers rated this at (M = 3.22, SD = 0.62), still within the "agree" range, indicating that excursions to historical sites and civic institutions are a recognized component of instruction. Head teachers reported that field trips are frequently organized to help learners contextualize historical and governmental concepts. Documentary evidence, including assessment records and school reports, confirmed learners' engagement in these community-based activities, which is consistent with UNESCO (2019) and Mutisya and Makokha (2016), who highlight field-based learning as a key strategy for competency-based education.

Agreement was observed for the statements, "We do group work about things we see or visited in our locality" (M =

3.14, SD = 0.83) and "I know more about my county and how people live than I have learned from the local administrators" (M = 2.75, SD = 0.90). Teachers' responses mirrored these perceptions falling within "agree" range, with M = 3.26 (SD = 0.55) and M = 3.29 (SD = 0.45), respectively. Head teachers noted that group work and observational activities are commonly used to encourage peer learning and reflection. Documentary analysis confirmed learners' participation in projects, local surveys, and collaborative assignments, reflecting project-based and place-based learning principles emphasized by Wallace et al. (2022) and Gakuru & Kibet (2018), which foster analytical skills, civic responsibility, and contextual understanding.

Learners reported lower agreement with, "Our teacher invites elders or leaders to teach us about our area" still falling within agree range (M = 2.50, SD = 0.99) and "We talk about real problems like roads, markets, or schools in our village" (M = 2.69, SD = 0.94), though teachers' agree range ratings were higher, at M = 2.74 (SD = 0.60) and M = 3.32 (SD = 0.54), respectively. This indicates that while some engagement with community leaders and local problem-solving occurs, learners perceive it as less consistent. Head teachers confirmed that involvement of elders and discussion of local issues varies across schools. Documentary analysis, including meeting minutes and communication logs, showed occasional community participation, suggesting room for improvement. These findings are supported by Mitra and Serriere (2012) and Jenkins and Clarke (2020), who highlight the importance of student agency and strong school-community partnerships for meaningful engagement.

Classroom observations revealed active discussions on cultural practices, use of locally relevant examples, and occasional presentation of learner projects related to community issues. However, direct interaction with community elders or civic leaders was rarely observed during the observation period. While group activities and reflective discussions were evident, structured engagement with real-time local problem-solving was limited in some schools. These practices align with contemporary CBL and CBE approaches, emphasizing experiential learning, project-based learning, and community service to develop civic awareness, critical thinking, and holistic competencies among learners (Chepsiror, 2021; Rock, 2021; Febry et al., 2024).

Home Science/Agriculture

Table 4: Effective Integration of Community-based Learning in Home Science/Agriculture

Descriptive Statistics				
Respondents		**N**	**Mean**	**Std. Deviation**
Pupils	We learn how to grow crops or cook food from our homes and visits to local farms	247	3.36	.76
	Our teacher shows us how to take care of a home or small farm	247	3.40	.68
	We bring items from home to use in class activities	245	3.40	.74
	I have learned skills that help my family (like cleaning, cooking, farming).	247	3.36	.70
	We learn about healthy eating using food from our village	247	3.30	.79
	I use what I learn in class at home with my family	247	3.22	.86
	Average	**247**	**3.34**	**0.75**
Teachers	Pupils have learned how to grow crops or cook food from their homes and visits to local farms	208	3.64	.48
	Teacher shows learners how to take care of a home or small farm	208	3.67	.47
	Learners bring items from home to use in class activities	200	3.54	.50
	Pupils have learned skills that help their families (like cleaning, cooking, farming).	192	3.60	.49
	Pupils have learned about healthy eating using food from their villages	204	3.65	.47
	Pupils use what their learned in class at home with their families	208	3.50	.53
	Average	**203**	**3.60**	**0.49**

The general mean for learners (M = 3.34, SD = 0.75) falls within the "agree" range, while teachers' mean (M = 3.60, SD = 0.49) falls within the "strongly agree" range, reflecting an overall perception that community-based learning in Home Science and Agriculture is effectively integrated. Learners reported an agreement (M = 3.40, SD = 0.68) on the statement, "Our teacher shows us how to take care of a home or small farm," indicating that they agreed that lessons in Home Science and Agriculture actively demonstrate practical skills for home and small-

scale farming. This finding is corroborated by teachers, who strongly agreed with the same item (M = 3.67, SD = 0.47), reflecting consistent perceptions between learners and teachers regarding the demonstration of practical, community-relevant skills. Head teachers confirmed that teachers frequently provide hands-on demonstrations on farming, cooking, and household management. Documentary analysis, including lesson plans and schemes of work, further supports this observation, showing that class activities explicitly incorporate local agricultural and household practices. These findings align with the literature (Rock, 2021; Febry et al., 2024), which highlights that experiential learning and project-based approaches in community contexts enhance skill acquisition and applicability in learners' daily lives.

Learners again reported agreement with, "We bring items from home to use in class activities" (M = 3.40, SD = 0.74), suggesting that lessons actively integrate learners' home resources into classroom learning. Teachers also strongly agreed with this item (M = 3.54, SD = 0.50), indicating the use of home-based materials to reinforce practical learning. Head teachers noted that incorporating learners' personal resources helps contextualize learning and fosters active participation. Documentary evidence, including assessment records and co-curricular logs, confirmed that learners frequently use household items in class projects and skill demonstrations, reflecting contemporary community-based learning practices as highlighted by Jenkins and Clarke (2020) and Chepsiror (2021), which promote relevance, collaboration, and hands-on skill development.

Learners agreed with "We learn how to grow crops or cook food from our homes and visits to local farms" (M = 3.36, SD = 0.76) and "I have learned skills that help my family (like cleaning, cooking, farming)" (M = 3.36, SD = 0.70), indicating moderate engagement in skill acquisition activities. Headteacher J explained, *"We have seen positive changes where learners influence their families' eating habits after learning in class*. Teachers' responses mirrored these perceptions, with strong agreement (M = 3.64, SD = 0.48) and (M = 3.60, SD = 0.49), respectively. Head teachers observed that both classroom instruction and practical visits to local farms effectively link theory with real-life applications, enhancing learners' competence in household and agricultural skills. Documentary analysis, including lesson plans, assessment records, and co-curricular activity logs, confirmed learners' involvement in practical demonstrations and applied learning exercises. These findings are consistent with project-based and experiential learning models discussed by Gakuru & Kibet (2018) and Wallace et al. (2022), emphasizing hands-on engagement, problem-solving, and collaboration.

Other items, including "We learn about healthy eating using food from our village" (learners: M = 3.30, SD = 0.79; teachers: M = 3.65, SD = 0.47) Head teacher N 15 stated, *"Our teachers consistently emphasize healthy eating using locally available foods so that learners can easily practice at home."* Another item "I use what I learn in class at home with my family" (learners: M = 3.22, SD = 0.86; teachers: M = 3.50, SD = 0.53), indicate agreement and strong agreement, respectively. While learners agreed, teachers strongly agreed, suggesting that the transfer of classroom learning to home practices is recognized but may not be uniformly experienced by all learners. Head teachers reinforced these findings in their interview reports. Head teacher N5, noted, *"Learners are encouraged to apply what they learn in school within their households, especially in food preparation and hygiene."* Similarly, Head teacher U8 noted, *"Teachers integrate nutrition and home-based practices because most learners come from farming communities."* Finally, Head teacher U1 emphasized, *"The goal is to ensure that learning is practical and directly useful in the learners' daily lives at home."* These verbatim responses confirm that schools intentionally promote the application of classroom knowledge to real-life contexts. This aligns with literature emphasizing experiential and service-oriented learning in community contexts (Munyao & Ogola, 2022; Chege & Ndegwa, 2020), which reinforces skill application and holistic development.

Findings from the observation checklist independently confirmed strong integration of practical, community-based activities in Home Science and Agriculture lessons (Figures 5 & 6). Classroom observations revealed that teachers regularly conducted hands-on demonstrations on crop planting, food preparation, cleaning routines, and basic household management skills. This was echoed by a Head teacher N1, who remarked, *"Most of our lessons in Agriculture and Home Science are practical, allowing learners to engage directly with the activities."* Learners were observed actively participating in tasks such as handling farm tools, preparing simple meals, and organizing household materials brought from home. In several schools, small demonstration gardens and improvised kitchen spaces were utilized to reinforce experiential learning, as highlighted by Head teacher U1 who stated, *"We have established small school gardens and simple kitchens to support practical learning."* Additionally, teachers consistently linked classroom instruction to learners' home environments by referencing local farming practices and dietary habits. However, minor variations were noted in the depth of learner engagement and availability of materials across schools, a concern captured by Head teacher N18, who noted, *"Some schools lack adequate materials, which affects the level of practical engagement among learners."*

Findings from the observation checklist independently confirmed that Home Science and Agriculture lessons

strongly integrated practical, community-based activities. Researcher during observation noted that teachers regularly conducted hands-on demonstrations on crop planting, food preparation, household chores, and basic farm management skills. Learners actively participated in these tasks, including handling farm tools, preparing meals, and organizing household materials brought from home. Small demonstration gardens, kitchen corners, and improvised learning spaces were commonly used to reinforce experiential learning. This is illustrated in figure 1 where pupils were observed preparing a meal using materials brought from their homes during a Home Science lesson.

Figure 1. Pupils cooking a meal during a Home Science Lesson.

Source. Field data (2025). *Note*. Faces blurred to ensure confidentiality and compliance with research ethics.

Pupils are actively engaged in food preparation. One child stirs food in a pot on a charcoal stove, while others observe or prepare ingredients such as sliced potatoes. The pupils are working together around a shared cooking station, suggesting cooperative learning and peer support. The photo exemplifies CBL principles where students are solving a real-world challenge (food preparation) through hands-on practice, collaboration, and guided inquiry. The activity fosters practical skills (cooking, nutrition awareness), cognitive skills (problem-solving, sequencing steps), and social skills (teamwork, communication). This aligns with social constructivist theory by Dewey (1897. This photo can be interpreted as strong evidence of student-centered pedagogy in practice. It demonstrates how CBL moves beyond traditional classroom instruction by immersing learners in authentic, meaningful tasks that connect knowledge to practice.

Teachers consistently linked classroom instruction to learners' home and community contexts, referencing local agricultural practices, dietary habits, and household management routines. Minor variations were observed in learner engagement and resource availability across schools, but overall, the checklist confirmed that practical skill development and applied learning form a central component of instruction. Figure 2, which shows Agriculture learners gathering livestock information from an elderly woman, provides visual confirmation of the strong integration of competency-based and experiential learning highlighted in the observation findings. The image illustrates learners actively engaged in a real-life agricultural task, demonstrating the practical application of skills taught in class such as animal handling, responsibility, and teamwork. This activity reflects the alignment between classroom instruction and community practices, as livestock management is a common livelihood activity within learners' home environments. The figure therefore reinforces evidence from survey, documentary, and observation data that Agriculture lessons are not merely theoretical but are grounded in hands-on,

community-relevant experiences that enhance learner acquisition, and readiness to apply knowledge in real-world context.

Figure 2: Agriculture Learners gathering Livestock information from a local Farmer

Source. Field data (2025). *Note*. Faces were blurred to conceal identity and in compliance with ethics.

The outdoor environment and presence of livestock suggest that the lesson is embedded in real-life agricultural practices, aligning with CBL's emphasis on authentic contexts. The older adult acts as a knowledge bearer, demonstrating intergenerational learning and the integration of local expertise into formal education. Pupils are actively recording information, showing attentiveness and participation. Their body language indicates respect and curiosity, hallmarks of learner-centered pedagogy. The group setting fosters peer interaction and shared discovery, consistent with CBL's collaborative problem-solving approach. This photo exemplifies CBL principles by situating learning in a real-world challenge and understanding agricultural practices and community knowledge. It demonstrates how education can transcend classroom walls to embrace experiential and place-based learning.

These practices resonate with contemporary CBL approaches emphasizing experiential learning, PBL, and community service to enhance life skills, civic responsibility, and holistic competencies among learners (Chepsiror, 2021; Rock, 2021; Febry et al., 2024).

Physical and Health Education

Table 5: Integration of Community-based Learning in Physical and Health Education

Descriptive Statistics				
Respondents		**N**	**Mean**	**Std. Deviation**
Pupils	We learn games that are played in our community	247	3.34	.73
	Our teacher invites health workers to teach us how to keep our bodies healthy at home	247	2.86	.90
	We exercise in ways that help us in daily life	245	3.42	.67
	We talk about hygiene and health in our families or villages.	247	3.23	.83
	We practice helping others in health emergencies learned from local dispensary	247	3.08	.85
	We do group activities that build teamwork and respect	247	3.38	.78
	Average	**247**	**3.21**	**0.81**
Teachers	Pupils learn games that are played in their community	208	3.35	.47
	Teacher invites health worker to teach pupils how to keep their bodies healthy at home	208	3.19	.66
	Pupils exercise in ways that help them in daily life	208	3.20	.64
	Pupils talk about hygiene and health in their families or villages.	204	3.35	.47
	Pupils practice helping others in health emergencies learned from local dispensary	208	3.16	.61
	Pupils do group activities that build teamwork and respect	208	3.25	.51
	Average	**207**	**3.25**	**0.56**

The general mean for learners (M = 3.21, SD = 0.81) and teachers (M = 3.25, SD = 0.56) falls within the "agree" range, reflecting a shared perception that community-based learning is moderately integrated into Physical and Health Education.

Learners reported (M = 3.42, SD = 0.67) on the statement, "We exercise in ways that help us in daily life," indicating that they agreed that physical and health education lessons incorporate practical exercises relevant to their everyday routines. This finding is supported by teachers, who rated the same item slightly lower (M = 3.20, SD = 0.64), still within the "agree" range, reflecting alignment between learners' perceptions and teachers' instructional practices. Head teachers confirmed that teachers frequently design activities that link physical exercise to daily life skills, while documentary analysis of lesson plans and schemes of work demonstrated explicit inclusion of practical exercises. This finding aligns with Chepsiror (2021) and Rock (2021), who emphasize the importance of experiential learning in promoting holistic physical competence and health awareness through contextual activities.

Learners also reported agreement with, "We do group activities that build teamwork and respect" (M = 3.38, SD = 0.78), suggesting that lessons foster social and collaborative skills alongside physical development. Teachers strongly agreed with this item (M = 3.25, SD = 0.51), indicating consistent use of cooperative learning strategies to enhance interpersonal and social competencies. Head teachers (Appendix C) observed that group exercises and team games are regularly employed to cultivate collaboration, respect, and mutual support among learners. Documentary evidence, including co-curricular activity records, confirmed that pupils participate in structured teamwork exercises, aligning with project-based and community-oriented approaches that foster social responsibility and cohesion (Wallace et al., 2022; Febry et al., 2024).

Learners agreed with the statements, "We learn games that are played in our community" (M = 3.34, SD = 0.73) and "We talk about hygiene and health in our families or villages" (M = 3.23, SD = 0.83), indicating moderate integration of local games and health discussions into lessons. Teachers' ratings mirrored these perceptions (M = 3.35, SD = 0.47 and M = 3.35, SD = 0.47, respectively), suggesting alignment in recognizing the value of community-relevant content. Head teachers reported that teachers integrate traditional games, hygiene education, and health promotion into daily instruction, reinforcing both cultural knowledge and health literacy. Documentary analysis of lesson plans and assessment records confirmed learners' participation in these activities, consistent with experiential and place-based learning models that enhance practical knowledge and civic responsibility (Chege & Ndegwa, 2020; Munyao & Ogola, 2022).

Moderate agreement was observed for the items, "We practice helping others in health emergencies learned from local dispensary" (learners M = 3.08, SD = 0.85; teachers M = 3.16, SD = 0.61) and "Our teacher invites health workers to teach us how to keep our bodies healthy at home" (learners M = 2.86, SD = 0.98; teachers M = 3.19, SD = 0.66). These findings indicate that while practical

health skills and expert guidance are included, learners perceive them as less frequent or less consistent. Head teachers highlighted that engagement with health professionals and local dispensaries occurs occasionally, supported by school reports and communication logs, suggesting room for strengthening community-linked health instruction. This resonates with Mitra and Serriere (2012) and Jenkins and Clarke (2020), who emphasize sustained community partnerships to enhance skill relevance and learner engagement.

Findings from the observation checklist indicated that Physical and Health Education lessons consistently incorporated practical, life-related activities. Observations showed learners actively engaging in exercises linked to daily routines such as stretching, running, basic fitness drills, and team games that emphasized cooperation, discipline, and respect. Teachers frequently organized group activities and traditional games familiar within the community, reinforcing both physical fitness and social skills.

Hygiene and health topics were visibly integrated through demonstrations and activities on personal cleanliness, safe practices, environmental clean-ups and simple first-aid simulations. This is illustrated in figure 3 where students participated in a community service-learning session attended by the researcher in a church. In some schools, limited equipment and space constrained the variety of activities, leading to differences in lesson intensity and learner participation.

Figure 3: Pupils cleaning a Church Compound during their CSL Lesson

Source. Field data (2025). *Note.* Faces were blurred to conceal identity and in compliance with ethics.

The children are actively collecting sticks, sweeping, and clearing debris from the grassy area near the church building. The church elder stands nearby, observing and guiding the pupils. Pupils are learning practical skills in hygiene, sanitation, and environmental care. Conducting the exercise in a church compound situates learning within a communal and spiritual space, highlighting the role of schools in supporting community institutions. Pupils develop teamwork, responsibility, and problem-solving skills while engaging in collective action. The collaboration between pupils and the adult facilitator models mentorship, guidance, and shared responsibility for community well-being. The clean-up exercise demonstrates how theoretical lessons on hygiene and sanitation are translated into real-life practice, ensuring deeper understanding and retention. Pupils acquire cognitive knowledge (importance of cleanliness), psychomotor skills (cleaning techniques), and affective values (respect for communal spaces). This is corroborated by Chifamba, C., & Dlamini, C. (2023) in an Adventist

Educators blog article that highlights school–community collaboration as the school acting as "a center of influence." This community service learning (CSL) exemplifies how CBL integrated into CBE fosters experiential learning, civic engagement, and sustainable practices, making education socially relevant and transformative.

Science and Technology

Table 6: Effective Integration of Community-based Learning in Science and Technology

Descriptive Statistics				
Type of respondents		**N**	**Mean**	**Std. Deviation**
Pupils	We do experiments using things collected in our community	247	3.65	.63
	I learn how tools and machines work at home or in the village	247	3.10	.77
	We talk about how science helps people in real life by visiting local experts	247	2.96	.88
	We make simple models using materials from around us such as clay and wire collected from the community	245	3.21	.83
	Our teacher shows us local inventions or farming tools	245	3.10	.72
	We solve real problems using science ideas	247	2.97	.96
	Average	**246**	**3.16**	**0.80**
Teachers	Pupils do experiments using things found in their community	208	3.35	.51
	Pupils learn how tools and machines work at home or in the village	208	3.35	.47
	Pupils talk about how science helps people in real life by visiting local experts	201	2.90	.52
	Pupils make simple models using materials from around us such as clay and wire collected from the community	208	3.32	.67
	Teacher shows pupils local inventions or farming tools	208	3.37	.59
	Pupils solve real life problems using science ideas	208	3.16	.70
	Average	**207**	**3.24**	**0.58**

The overall mean for learners (M = 3.16, SD = 0.80) and teachers (M = 3.24, SD = 0.58) falls within the "agree" range, indicating a shared perception that community-based learning is moderately integrated into science instruction.

Learners reported (M = 3.65, SD = 0.63) on the statement, "We do experiments using things collected in our community," indicating that they agreed that science lessons actively involve practical experimentation with locally sourced materials. Teachers also agreed with this item (M = 3.35, SD = 0.51), reflecting alignment between learners' perceptions and teachers' instructional practices. Head teachers confirmed that teachers regularly organize experiments using materials from learners' homes or communities to illustrate scientific principles. Documentary analysis of lesson plans and schemes of work further supports this observation, showing deliberate integration of local resources in practical science activities. These findings align with Sun and Xiao (2023) and Chepsiror (2021), who emphasize experiential learning and hands-on engagement as key strategies in competency-based education for developing scientific understanding and skills.

Learners also reported agreement with, "We make simple models using materials from around us such as clay and wire collected from the community" (M = 3.21, SD = 0.83) and "I learn how tools and machines work at home or in the village" (M = 3.10, SD = 0.77). Teachers' ratings mirrored these perceptions (M = 3.32, SD = 0.67 and M = 3.35, SD = 0.47, respectively), indicating that model-making and observation of everyday tools are common pedagogical strategies as shown in figure 4.

Figure 4. Pupils displaying a Model made using local materials

Source. Field data (2025). *Note*. Faces were blurred to conceal identity and in compliance with ethics.

Using locally available materials such as wires, sticks, old clothing, and straw, the pupils collaborate to model the scarecrow. Pupils apply scientific knowledge about agriculture, ecosystems, and pest control. The scarecrow serves as a practical tool to protect crops, linking classroom theory with real-world farming practices. The activity integrates school learning with community agricultural traditions. By modeling a scarecrow, pupils contribute to local farming solutions, reinforcing the relevance of science education. This is consistent with studies by Sarumaha & Lufri (2018) advocate for Problem Based Learning (PBL), which immerses pupils in real-world problem-solving scenarios to deepen knowledge acquisition and cultivate positive attitudes towards inquiry-based learning. Pupils practice creativity, problem-solving, and teamwork while manipulating materials to construct the scarecrow. They also learn resourcefulness by using locally available items. The photograph demonstrates how science lessons can be contextualized in community settings, making learning practical and meaningful. Pupils gain agricultural knowledge while developing social competencies such as collaboration, respect for guidance, and confidence in demonstration. This case illustrates how community-based learning enriches science education, fostering experiential learning, cultural continuity, and civic responsibility.

Head teachers observed that learners engage in constructing models and exploring mechanical principles in real-life contexts, promoting practical understanding of science concepts. Documentary evidence, including assessment records and co-curricular logs, confirmed that learners actively participate in applied science activities, reflecting project-based and community-oriented learning approaches (Gakuru & Kibet, 2018; Febry et al., 2024).

Moderate agreement was observed for the items, “Our teacher shows us local inventions or farming tools” (learners M = 3.10, SD = 0.72; teachers M = 3.37, SD = 0.59), “We talk about how science helps people in real life by visiting local experts” learners (M = 2.96, SD = 0.88); teachers (M = 2.90, SD = 0.52), and “We solve real problems using science ideas” learners (M = 2.97, SD = 0.96); teachers (M = 3.16, SD = 0.70). These findings suggest that while practical experiments and model-making are well integrated, engagement with local experts and application of science to real-life problem-solving is less consistent. Head teachers noted that interactions with local experts and problem-solving tasks occur but vary among schools. Documentary evidence, including field visit logs and project reports, confirmed occasional engagement with community professionals and real-world problem-solving, highlighting areas for improvement. These observations resonate with Mitra and Serriere (2012) and Jenkins and Clarke (2020), who underscore the importance of sustained community partnerships and applied learning to strengthen relevance and skill development.

The researcher observed that learners actively participated in experiments using materials collected from their homes or local environments, such as soil, water, plants, and household items, to explore scientific concepts in a hands-on manner. Model-making activities using clay, wire, and other locally available materials were frequently observed, with learners constructing simple machines and prototypes while applying principles of physics and mechanics. Teachers were seen guiding learners through experimental procedures, encouraging inquiry, prediction, and critical thinking. However, engagement with local experts or visits to community sites to demonstrate real-life applications of science concepts was infrequently observed, and problem-solving exercises linked to community issues occurred sporadically.

Relationship between Household Income Levels and the Extent of Community-based Learning Integration

To examine the relationship between household income levels and the extent of community-based learning integration in primary schools, Spearman's correlation was used to assess the degree of association between the two variables. The correlation coefficient ranges from −1 to +1, where negative values indicate an inverse relationship and positive values indicate a direct relationship. A coefficient of less than 0.3 denotes a weak correlation, 0.3 to less than 0.5 indicates a moderate correlation, and 0.5 or higher indicates a strong correlation.

Table 7: Relationship Between Household Income Levels and the Extent of Community-based Learning Integration in Primary Schools

Correlations

			Income levels	English Language	Mathematics	Social Studies	Home Science	Physical and Health	Science and Technology
Spearman's rho	Income levels	Correlation Coefficient	1.000	-.017	.080	-.118	.006	-.048	.020
		Sig. (2-tailed)	.	.793	.225	.073	.927	.461	.760
		N	238	227	229	232	236	236	236
	English Language	Correlation Coefficient	-.017	1.000	.516**	.436**	.475**	.290**	.394**
		Sig. (2-tailed)	.793	.	.000	.000	.000	.000	.000
		N	227	435	425	425	413	429	426
	Mathematics	Correlation Coefficient	.080	.516**	1.000	.376**	.495**	.357**	.466**
		Sig. (2-tailed)	.225	.000	.	.000	.000	.000	.000
		N	229	425	441	433	417	437	432
	Social Studies	Correlation Coefficient	-.118	.436**	.376**	1.000	.439**	.482**	.386**
		Sig. (2-tailed)	.073	.000	.000	.	.000	.000	.000
		N	232	425	433	445	417	445	436
	Home Science	Correlation Coefficient	.006	.475**	.495**	.439**	1.000	.510**	.610**
		Sig. (2-tailed)	.927	.000	.000	.000	.	.000	.000
		N	236	413	417	417	425	421	416
	Physical and Health	Correlation Coefficient	-.048	.290**	.357**	.482**	.510**	1.000	.534**
		Sig. (2-tailed)	.461	.000	.000	.000	.000	.	.000
		N	236	429	437	445	421	449	440
	Science and Technology	Correlation Coefficient	.020	.394**	.466**	.386**	.610**	.534**	1.000

	Sig. (2-tailed)	.760	.000	.000	.000	.000	.000	.
	N	236	426	432	436	416	440	446

**. Correlation is significant at the 0.05 level (2-tailed).

The correlation analysis presented in Table 7 provides a nuanced understanding of the relationship between household income levels and the extent of community-based learning (CBL) integration across specific subjects in primary schools. Using Spearman's rho, the results consistently indicate weak and statistically non-significant relationships between household income and CBL integration in all subjects examined, thereby suggesting that household economic status does not meaningfully influence subject-specific implementation of CBL.

A subject-by-subject examination reveals important insights. For English Language, the correlation with income levels is negative and negligible ($r = –.017$, $p = .793$), indicating no meaningful association. This implies that the incorporation of CBL strategies such as storytelling, community interviews, and language use in real-life contexts is implemented uniformly across learners regardless of their socio-economic background. Similarly, in Mathematics, a weak positive but non-significant relationship is observed ($r = .080$, $p = .225$), suggesting that practical applications of mathematics within community contexts (e.g., measurement, trade activities) are not dependent on household income.

In Social Studies, the relationship is weakly negative ($r = –.118$, $p = .073$) and approaches significance but remains statistically insignificant. This near-threshold finding shows a slight tendency for lower-income contexts to engage more with community-based content, possibly due to greater reliance on local knowledge and lived experiences; however, this relationship is not strong enough to draw firm conclusions. For Home Science, the correlation is virtually zero ($r = .006$, $p = .927$), demonstrating a complete absence of association. This suggests that practical, home- and community-oriented learning activities in this subject are equally accessible across income groups, likely because they draw on universally available domestic and community resources.

The pattern persists in Physical and Health Education ($r = –.048$, $p = .461$) and Science and Technology ($r = .020$, $p = .760$), where correlations are again weak and statistically insignificant. The findings indicate that there is no statistically significant relationship between household income levels and the extent of community-based learning integration in any of the subjects examined. These results suggest that school-level or systemic factors (e.g., curriculum policy, teacher practices, or institutional support) may play a more critical role in determining the extent of CBL integration than household economic status.

Importantly, while income levels show no significant association with CBL integration, the inter-subject correlations reveal a different pattern. There are moderate to strong, positive, and statistically significant relationships among all subjects (e.g., English and Mathematics: $r = .516$, $p < .001$; Home Science and Science & Technology: $r = .610$, $p < .001$). This suggests that CBL integration is systemic and cross-curricular in nature—schools that effectively integrate CBL in one subject are highly likely to do so in others. Such a pattern underscores the role of institutional coherence, teacher collaboration, and whole-school approaches rather than isolated, subject-specific or socio-economically driven practices.

From a theoretical and empirical standpoint, these findings reinforce the argument that CBL integration is primarily institutionally and pedagogically driven rather than economically determined at the household level. This aligns with Wambua and Kirui (2023), who emphasize that the successful implementation of competency-based education (CBE) practices depends largely on school leadership, teacher capacity, and availability of instructional resources within the school environment. Similarly, Ochieng and Mureithi (2022) contend that strong community partnerships and collective participation often neutralize socio-economic disparities, enabling equitable learner engagement in experiential learning activities.

However, a critical reading of the literature suggests that the absence of a direct relationship should not be interpreted as the complete irrelevance of household income. Studies by Mugo (2023) and Kibet (2022) highlight that income may exert indirect effects, particularly through parental involvement, provision of supplementary materials, and logistical support for out-of-school learning activities. Thus, while schools may standardize CBL implementation, subtle inequalities in learner experiences may still persist beneath the surface.

Furthermore, the findings resonate with Chepkorir (2024), who argues that the competency-based education framework in Kenya is deliberately structured to promote equity and inclusivity, ensuring that all learners participate in community-based activities irrespective of socio-economic background. The lack of significant variation across subjects in this study provides empirical support for this policy intention, suggesting that schools are operationalizing CBL in a manner consistent with national goals of equitable education.

In conclusion, the results strongly support the acceptance of the null hypothesis that household income levels have no statistically significant relationship with the extent of community-based learning integration across subjects in primary schools. More importantly, the findings illuminate that CBL integration is a system-wide pedagogical practice, shaped by institutional capacity, teacher agency, and community collaboration rather than by individual household economic conditions.

5. Conclusion and Recommendations

5.1 Conclusion

The integration of community-based learning (CBL) into the Competency-Based Education (CBE) curriculum in public primary schools within the Rift Valley Region was found to be moderately effective. While subjects such as Home Science/Agriculture, Mathematics, Physical and Health Education, and Science and Technology showed strong alignment with CBL principles through practical, hands-on, and contextualized activities, other subjects like English and Social Studies exhibited variability, particularly in activities requiring community involvement. Household income levels were not significantly related to the extent of CBL integration, indicating that socio-economic disparities among pupils do not substantially affect participation in community-based activities. This suggests that institutional initiatives, teacher preparedness, and community support mechanisms play a more decisive role than household economic status in determining the extent of CBL implementation.

5.2 Recommendations

1. School principals and teachers should strengthen Community-Based Learning (CBL) integration in English and Social Studies, particularly through activities that require active community involvement such as inviting elders, discussing local issues, and engaging learners in community-based storytelling.

2. The Ministry of Education, in collaboration with teacher training institutions and agencies such as the Kenya Education Management Institute (KEMI), should provide targeted teacher training on effective strategies for linking community resources with English and Social Studies lessons.

3. School management teams, supported by Boards of Management and the Ministry of Education, should ensure that all learners, regardless of socio-economic status, have equitable access to CBL activities.

4. School principals, in partnership with Boards of Management and local communities, should develop school-level initiatives that mitigate socio-economic disparities, such as shared learning resources and community-supported funding programs.

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