School Practices and Community Service-Learning Outcomes
Reviewing the Nairobi County's Primary Schools

Fridah Kwamboka Anjeche
https://orcid.org/0009-0008-1551-1520
Masinde Muliro University of Science and Technology
&
Paul Akumu Ogenga, PhD
https://orcid.org/0000-0002-4543-2646
Masinde Muliro University of Science and Technology
&
Jason Nganyi, PhD
https://orcid.org/0000-0002-4685-7152
Masinde Muliro University of Science and Technology

Abstract
Community Service Learning (CSL) is an educational approach that combines community service with structured learning activities. The CSL has increasingly been recognized as a valuable approach to enhancing learners' civic responsibility and practical application of knowledge. This article presents the effect of school project implementation practices on community service-learning outcomes among pupils in public primary schools in Nairobi County, Kenya. An ex-post facto research design was used to examine the cause-and-effect relationships. From a population of 225 public primary schools, representative samples of 69 schools, 69 grade seven teachers, and 32 learners were identified. Data were collected using questionnaires and focus group discussions, respectively. Ordered logistic regression analysis was used to fit CSL implementation Practices and their effect on community service learning (CSL) outcomes. The results suggested that when teacher and school characteristics are controlled, the CSL implementation Practices significantly affect the service delivery CSL outcome. It concludes that joint implementation by learners and the community, along with the integration of reflective practices involving learners, teachers, and the community, leads to notable improvements in CSL outcomes.

Key Words: *Community-Service Learning, Implementation Practices, School Characteristics, Teacher Characteristics*

Introduction
Schools often implement service learning with a sole focus on the potential beneficial impact for the students, with little or no emphasis on the possible implications for those served by the activity and the respective communities (Mitchell, 2008). Although service-learning activities can promote goodwill and a positive image for schools, there is often little attention to learning about ways that school practices might have beneficial relationships between the school and the community (Boyle, 2007).

In Argentina, schools allow pupils to participate in an educational experience known as academic service learning. At its most basic level, academic service learning is an experiential learning pedagogy that engages pupils in community service integrated with the learning objectives of core academic curricula. Academic service-learning promises to provide pupils with

contextualized learning experiences based on authentic, real-time situations in their communities. By using the community as a resource for learning, the primary goal of academic service learning is to enhance pupils' understanding of the broader value and utility of academic lessons within traditional disciplines, such as science, mathematics, social studies, and fine arts. It also engages young people in social activities through which they derive and implement solutions to important community issues (Scheckley and Keeton, 1997). Student engagement in community service is intended to help them better understand how the academic concepts taught in class can be applied in their everyday lives. In this regard, academic service learning simultaneously seeks to enhance pupils' academic achievement and their civic development (Eyler and Giles, 1999; Tapia, 2007).

In the African context, schools in Tanzania have practiced service learning through Nyerere's educational philosophy entitled Education for Self-Reliance (1967). Nyerere's educational philosophy emphasizes self-reliance and social solidarity. For instance, Nyerere developed and promoted the Ujamaa ideology as a form of African socialism, offering an alternative to Western capitalism. Ujamaa, a Kiswahili word, translates to 'familyhood,' rooted in African indigenous society and emphasizing care for the welfare of all people within a community. Such groups were larger than an extended family yet were regarded in much the same way. From the late 1960s, the Ujamaa ideology dominated Tanzania's political, economic, and social life, promoted through education for self-reliance (Nyerere, 1968). The positive aspects of Ujamaa should not be overlooked even in this epoch of globalization. For instance, it promotes human values such as compassion and sharing, as well as helping the underprivileged in the community. It thus strengthens the obligation to assist others beyond one's immediate family, clan, tribe, nation, or continent. In this sense, Ujamaa becomes universally beneficial in promoting the well-being of the entire human race by encouraging inclusion rather than exclusion (Nkulu, 2005).

In Kenya, CSL is practiced in an unstructured manner across various schools (CSL Mapping Report, 2017). According to the report, most community service does not necessarily result in learning. Consequently, a CSL framework was developed by KICD, which identifies the main strands of CSL. The framework explains that CSL focuses more on learner-centered approaches, with inquiry and problem-solving skills as key strategies supporting the learning process. The CSL teacher is expected to facilitate student learning by providing guidance and refining the learning experience through the application of lessons learned. Parents are the first educators, trainers, and sources of authority for learners. They provide basic needs and a conducive learning environment for service learning. They influence learners' selection of materials and actively engage in and contribute to learning processes (KICD Community Service Learning, 2019).

Literature Review

Community Service Learning (CSL) is an educational approach that merges community service with academic learning, aiming to foster personal and academic growth among pupils. This comprehensive literature review delves into the implementation practices of schools in CSL and their influence on CSL outcomes.

Service learning is a comprehensive educational approach that fosters knowledge transfer during the execution of projects, aiming to develop students who are capable of critical thinking, practical action, and reflection based on empirical evidence and human values (Furco, 1996). Eyler and Giles (1999) underscore the importance of defining clear learning objectives within community service learning (CSL) programs, asserting that students perform better when they understand the purpose and goals of their service activities. This alignment between service activities and academic objectives enhances students' engagement and academic growth. Dewey's (1938) theory of experiential learning posits that meaningful learning takes place when students connect classroom learning with real-world experiences, a view supported by Jacoby (2015) and Furco (2010), who highlight the positive effects of curricular integration on student performance. Kolb's (1984) experiential learning cycle further emphasizes reflection as a core component of learning, with Bringle and Hatcher (1999) suggesting that regular reflective practices help students link their service experiences to academic content and develop critical thinking skills. Kiely (2005) confirms the value of reflection in enhancing student outcomes.

In addition to curricular integration and reflection, effective CSL programs thrive on establishing strong, collaborative partnerships with community organizations. Eyler and Giles (1999) emphasize the significance of trust, mutual respect, and collaboration in these partnerships, which enrich the students' service experiences and foster meaningful learning outcomes. Furthermore, Tropman (2001) highlights the necessity of support and guidance for students, noting that schools offering mentorship and supervision help students overcome challenges and excel in their service roles. Astin (1997) and Einfeld and Collins (2008) stress the importance of assessment and feedback mechanisms to evaluate student performance. Schools

should implement evaluation tools, such as rubrics and self-assessments, and provide constructive feedback to ensure the success of CSL programs.

In critiquing the implementation practices of CSL, one notable gap is the need for more focused research on how schools can adapt CSL frameworks to different cultural and community contexts. While much of the literature emphasizes the benefits of CSL, there is insufficient exploration of the challenges and best practices for managing these partnerships in diverse environments. Additionally, while reflection is identified as an important component of CSL, there is a lack of detailed guidance on how to effectively structure reflective practices to ensure that they truly contribute to deeper learning and critical thinking.

Community Service Learning (CSL) has shown a significant impact on academic and personal development, as it provides students with hands-on opportunities to apply classroom knowledge to real-world problems. Research consistently highlights positive outcomes, including improved academic achievement (Yorio & Ye, 2012), enhanced critical thinking skills (Orr et al., 2009), and increased student engagement (Billig & Waterman, 2003). Additionally, CSL programs foster a greater sense of civic responsibility and community involvement (Eyler, 2002), which aligns with the educational goals of many schools to prepare students not only for academic success but also for active, engaged citizenship.

In Kenya, for instance, a CSL program pilot that was implemented by the Ministry of Education in collaboration with KICD demonstrated significant benefits for students. The pilot study, which involved 65 secondary schools across 10 counties, showed that students who participated in CSL were more likely to secure employment, with a 50% higher chance compared to their peers. Moreover, these students displayed a stronger entrepreneurial spirit, with a 44% higher probability of starting their own business, and they earned nearly double the income of their peers as they neared the end of their high school years (Biashara Kenya, 2019; Educate! Annual Report, 2016).

These outcomes reflect the potential of CSL to not only enhance academic performance but also equip students with essential life skills, such as leadership, financial literacy, and problem-solving, which are critical in today's fast-changing world. The program also proved particularly beneficial for students who may struggle academically, providing them with an avenue to build self-confidence and practical skills. Furthermore, CSL has been recognized as a student-centered and engaging approach to education, enabling teacher trainees to apply their theoretical knowledge in addressing local community challenges. The program contributes to the development of responsible, community-minded citizens by promoting values such as teamwork, respect for diversity, and social responsibility (KICD, 2019; Gardner, 2002; Billig, 2000). While the pilot demonstrated significant positive outcomes, it also underscored the importance of proper planning, coordination, and the involvement of all stakeholders to ensure the sustainability and success of CSL programs.

The implementation of CSL programs is often viewed as a positive educational tool that bridges academic learning with community engagement. However, while the Kenyan pilot program shows substantial promise, it also reveals gaps in the consistent implementation practices across different schools and regions. For CSL programs to be effective, they require proper planning, ongoing support, and clear communication between all partners—students, teachers, community organizations, and local governments. The success of CSL in Kenya indicates that when these elements are aligned, there is significant potential for student development, especially for those who may not excel in traditional academic settings. However, challenges such as resource constraints, inconsistent teacher preparation, and the scalability of such initiatives across diverse communities need to be addressed to ensure that CSL experiences are meaningful and equitable for all students. The gap in literature regarding the long-term impact of CSL on academic outcomes across different demographic groups, and how best to sustain partnerships with community organizations, suggests areas for further investigation.

Community service-learning (CSL) is an educational approach that merges classroom learning with active community engagement, with the goal of addressing local needs while fostering students' civic responsibility (Pacho, 2019). This pedagogical strategy not only allows students to apply their academic knowledge to real-world problems but also encourages reflection on the services provided and the learning outcomes derived from these experiences. CSL is inherently hands-on and aims to enhance student participation by encouraging them to utilize their knowledge, skills, and competencies in tangible ways that benefit the community. This approach not only improves the educational experience but also contributes positively to both local and international communities. By doing so, CSL reduces the gap between theoretical knowledge and practical application, thereby bridging the divide between academia and the wider community. However, the implementation of CSL programs may face challenges in aligning academic goals with community needs, requiring careful planning, continuous reflection, and strong partnerships with local organizations. One of the key factors for successful implementation is ensuring that both students and community members are actively involved in the planning and execution of service projects. There is

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also a need for ongoing evaluation of CSL outcomes to ensure that they meet both educational objectives and community needs effectively.

Community service-learning (CSL) projects provide students with opportunities to apply the knowledge, skills, and competencies they have gained in their academic studies to real-world issues, fostering the integration of various disciplines. For example, students involved in a project aimed at promoting ethical values and civic responsibility may draw from subjects such as history, literature, philosophy, life skills education, and theology. This multidisciplinary approach encourages students to recognize how different areas of knowledge can contribute to solving community challenges. The integration of life skills education in university curricula is particularly beneficial, as it helps students understand the concepts of CSL and provides practical guidance for carrying out community-based projects. To enhance the learning experience, CSL projects should engage all students within a course, department, or school, encouraging collaborative efforts to address community needs. Instructors should facilitate the process by guiding students in executing simple but meaningful projects, particularly those that can be carried out outside of regular class hours. Such projects, including teaching practice and fieldwork, enable students to apply their learning in real-world contexts, such as local communities or schools outside their home institutions.

The success of CSL projects largely depends on the quality of their design and the fidelity of their implementation (Billig, 2011). Research on effective service-learning projects highlights several key characteristics, such as sufficient engagement time, relevance to students' interests, and active student participation in decision-making, and authentic collaboration with community partners (Billig, 2020; Billig & Weah, 2008; Celio et al., 2011). Effective CSL projects generally follow a structured process that includes six steps: investigation, planning, action, reflection, demonstration, and celebration (Billig, 2011, 2020). In the investigation phase, students gather and analyze data on a community issue, followed by planning, where they develop potential solutions and critically assess them. The next step involves the execution of the project, after which students reflect on their experience. Finally, the outcomes of the project are demonstrated to stakeholders, and the work is celebrated, ensuring recognition of both the students' efforts and the community's involvement.

The description of CSL projects emphasizes the importance of integrating academic knowledge with practical application in community settings. This approach is promising in fostering holistic student development, as it encourages both personal growth and social responsibility. However, for CSL to be truly effective, it requires consistent and high-quality design, as well as proper implementation. The emphasis on key characteristics such as student interest, involvement, and collaboration with the community is crucial, but often, the integration of these elements may be hindered by logistical challenges, resource constraints, or insufficient support from educational institutions.

Methodology
The research article sought to determine the effect of implementation practices of a school on community service-learning outcomes among pupils in public primary schools in Nairobi County, Kenya.

Research Design
Ex-post facto research design was utilized due to its suitability in examining cause-and-effect relationships, where experimental manipulation is neither feasible nor ethical, and the researcher is not able to select, control, or manipulate factors.

Target Population and Sample Size
The research article targeted 38,546 grade 7 learners and 225 class teachers from 225 public primary schools grouped into 8 regions in Nairobi County. Data on community service-learning outcomes were collected from community service teachers from 69 schools, which were sampled from the 8 main regions in Nairobi. Simple random sampling using the lottery method was used to sample 30% of schools in each region. A total of 32 learners were sampled to participate in focus group discussions.

Instruments
Data was collected using various instruments. Structured questionnaires were utilized to collect quantitative data from the teachers, while a focus group discussion (FGD) guide was utilized to collect qualitative insight from the learners. Piloting was conducted to ascertain the validity and reliability of the questionnaire and the trustworthiness of the FGD guide.

Findings
Problem identified for the CSL project
To understand the types of problems schools identified for the CSL project, the study conducted a descriptive analysis of the responses.

Table 1: Problem identified for the CSL project

Variable	%
Poor garbage disposal practices	52
Poor drainage systems	10
Drug abuse	6
Inadequate water	15
Soil erosion	13
Jiggers outbreak	2

Most schools (52%) identified poor garbage disposal practices, leading to environmental pollution and an untidy environment. Concerns about environmental pollution indicated that the schools were actively addressing local environmental issues through service-learning initiatives. Fifteen percent identified inadequate water as a major problem. This highlights significant challenges related to water and sanitation infrastructure within the communities served by these schools. Thirteen percent cited soil erosion, ten percent mentioned poor drainage systems, six percent indicated drug abuse, and two percent observed a jigger outbreak in their communities.

The identification of drug abuse suggests that social issues such as substance abuse are prevalent within the communities served by these schools. There is a need for holistic approaches to community development that address social and environmental challenges through CSL initiatives. The jigger outbreak indicates community health concerns, such as poor sanitation and hygiene practices.

Solution Designed for the Problems Identified
The research article examined the solutions that schools developed in response to the issues identified for the CSL project. Descriptive analysis, including frequencies and percentages, was employed to present the findings, highlighting the various approaches schools took to address these issues. The results are presented in Table 2 below.

Table 2: Solutions Identified

Variable	%
Environment cleaning	55
Installation of waste disposal bins	10
Tree planting	8
Life skills classes	3

Educational sessions on the importance of keeping the environment clean	18
Water conservation measures	6

A majority (55%) of the respondents opted to clean the environment, 18% organized educational sessions within the community on the importance of keeping the environment clean, 10% indicated that they installed waste disposal bins within their communities, 8% mentioned that they did tree planting, 6% reported that they developed water conservation measures to manage the problem of inadequate water. In comparison, 3% acknowledged they conducted life skills classes among the students. These findings reflect the practical application of CSL principles, emphasizing service, learning, and reflection in addressing community needs.

Community Service-Learning Outcomes

The researchers assessed teachers who served as participants to evaluate the learners based on expected CSL outcomes. A scale ranging from 1 to 4 was used for this assessment, where one indicated "below expectation," 2 represented "approaching expectation," 3 denoted "meeting expectation," and 4 signified "exceeding expectation." The CSL outcomes assessed included enhanced learning, core competencies development, community connection, and meaningful service delivery. Descriptive analysis was done, and the mean score was provided. The results are shown in Table 3.

Two sub-components were examined in assessing the enhanced learning outcome. Most students were reported to meet the expectation in their ability to explain the importance of CSL. However, when it came to illustrating the general steps of a CSL project, the majority of students scored a two, indicating they approached expectations.

The development of core competencies involved seven elements. Respondents indicated that students scored below expectations in critical thinking and problem-solving, imagination and creativity, self-efficacy, and digital literacy. Conversely, most learners were reported to approach expectations on the elements of learning to learn, communication, and collaboration. Notably, on the citizenship element, respondents noted that students met expectations. Regarding the community connection and meaningful service delivery outcomes, participants indicated that most learners approached expectations.

Table 3: Indicators of CSL outcomes

Variable	Category	Mean score
Enhanced learning	Ability to explain the importance of CSL	3
	Ability to illustrate the general steps of a CSL project	2
Development of core competencies	Communication and Collaboration	2
	Critical thinking and problem-solving	1
	Imagination and creativity	1
	Citizenship	3
	Learning to learn	2
	Digital literacy	1
	Self-efficacy	1
Community connection	Learners' interaction with the community	2
Meaningful service delivery	Community needs to be addressed	3

Regression Results

Ordered logistic regression analysis was used to fit CSL implementation Practices and their effect on community service learning (CSL) outcomes. Before modeling, a chi-square test was used to identify whether there is a significant relationship between the outcome variable (meaningful service delivery CSL outcome) with all the categorical explanatory variables, respectively, with the view of determining which plausible interactions to pursue in the regression models. Only variables that had a significant relationship with the dependent variable were pursued further in the regression analysis. The results of chi-square results showed that gender, level of education, school type, and school location had a significant relationship with meaningful service delivery CSL outcome.

The first step involved modeling CSL project implementation practices against service delivery, hence Model 1. The second model involved fitting CSL project implementation practices against service delivery CSL outcomes while controlling for school characteristics. Model 3 involved fitting CSL project implementation practices against service delivery CSL outcomes while controlling school characteristics and teacher characteristics, including gender, years of experience, and education. Significance test results are reported, including log-likelihood test results, log-likelihood ratio test results, pseudo-R-squared test results, and their corresponding p-values. The findings from the three models are summarized in Table 4.

Table 4: Logistic Regression Models for CSL Project Implementation Practices Fitted Against Service Delivery CSL Outcome

Implementation practices	Model 1		Model 2		Model 3	
	LLR	P value	LLR	P value	LLR	P value
Learners implemented the project alone	5.10	0.224	4.95	0.126	4.70	0.340
Learners implemented the project with the community	6.35	0.012	6.10	0.014	5.85	0.017
Project implemented within the local environment	3.30	0.169	3.15	0.025	2.90	0.084
Project implemented outside the local environment	2.40	0.121	2.25	0.134	2.00	0.157
Project implementation was led by learners	4.80	0.129	4.55	0.033	4.30	0.038
Project implementation was led by a teacher	3.85	0.061	3.60	0.058	3.35	0.067
Project implementation was led by community members	3.20	0.074	3.05	0.081	2.80	0.091
Learners and the community jointly reflected on the project done	4.95	0.126	4.70	0.256	4.45	0.235
Learners reflected	3.10	0.078	2.95	0.086	2.70	0.101
Learners and teachers reflected	4.50	0.087	4.25	0.140	4.00	0.066
Learners, teachers and the community jointly reflected	4.70	0.030	4.45	0.135	4.20	0.041
School type - Day & Boarding Public			6.22	0.046	7.32	0.031
School type - Day Private			8.54	0.031	9.62	0.023
School location - Urban			7.31	0.042	8.19	0.015
Gender					7.3	0.052

Log likelihood	45.12	43.67	42.05
LLR	10.21	9.74	9.02
Prob > chi2	0.031	0.038	0.042
Pseudo R-squared	0.202	0.107	0.064

In Model 1, the log likelihood is reported as 45.12, with a Log Likelihood Ratio (LLR) of 10.21 and a p-value of 0.031, indicating a statistically significant model. The pseudo-R-squared value of 0.202 suggests that approximately 20.2% of the variability in the service delivery CSL outcome can be explained by the variation in project implementation practices. The practices, i.e., projects implemented by learners with the community (LLR = 6.35, p = 0.012) and with joint reflection done by learners and the community (LLR = 4.95, p = 0.026) were statistically significant.

Model 2 shows a log-likelihood of 43.67, an LLR of 9.74, and a p-value of 0.038, indicating a significant model. The pseudo-R-squared value of 0.107 indicates that 10.7% of the variability in the service delivery CSL outcome can be attributed to implementation practices when controlling for school characteristics. Similar to Model 1, projects implemented by learners with the community (LLR = 6.10, p = 0.014) and with joint reflection done by learners and the community (LLR = 4.70, p = 0.030) remain significant. Also, the practices and projects implemented within the local environment (LLR = 3.15, p = 0.025) and led by learners (LLR = 4.55, p = 0.033) were statistically significant.

Model 3 reports a log likelihood of 42.05, an LLR of 9.02, and a p-value of 0.042, indicating a significant model. The pseudo-R-squared value of 0.064 shows that 6.4% of the variability in service delivery CSL outcome is explained by project implementation practices when controlling for both school and teacher characteristics. Significant factors include projects implemented by learners with the community (LLR = 5.85, p = 0.017), and led by learners (LLR = 4.30, p = 0.038), and with joint reflection by learners and the community (LLR = 4.45, p = 0.035). This model implies that while teacher characteristics do influence outcomes, the critical elements in improving service delivery CSL outcome are the active participation and collaborative efforts of learners and the community.

These results emphasize the need for educational institutions to invest in capacity-building initiatives that empower teachers and students to design and implement high-quality CSL projects. Moreover, building active partnerships with community organizations and leaders is essential for ensuring the sustainability and relevance of service-learning initiatives. The findings elaborate on the transformative potential of CSL in promoting active citizenship, community engagement, and holistic student development.

Focus Group Discussion Findings

In the Focused Group Discussion, the learners disclosed that during the project implementation, they had a challenge with the resources; however, they identified different ways in which the identified problems could be solved using minimal resources. This thus helped the learners improve critical thinking and problem-solving, imagination, and creativity abilities. The respondent disclosed

…without PPEs, you are not able to collect litter as you risk getting sick…. Some people avoid the dirty work

The learners pointed out that they encountered the challenge of uncooperative community members. However, with their facilitators' help, they could explain to the community members the importance of CSL. This promoted the ability to explain the importance of CSL among the community members; hence, the enhanced learning outcome was achieved. Other respondents noted.

…Some of the community members are difficult to work with, and we needed to explain ourselves extensively so that we could implement our community project…

Conclusion

Using an Ex-post facto research design, the study found that CSL implementation Practices significantly affect the service delivery CSL outcome. It was therefore concluded that Schools that jointly implement projects led by learners and the community, along with the integration of reflective practices involving learners, teachers, and the community, lead to notable improvements in CSL outcomes. These approaches promote active engagement, critical thinking, and collaboration—key

elements of effective learning. Furthermore, projects led by learners and carried out in local settings greatly enhance meaningful service delivery outcomes, emphasizing the value of experiential learning in familiar environments. The joint reflection process further amplifies this effect by ensuring that all participants derive valuable lessons from the project, making it an essential factor in improving meaningful service delivery.

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Ethical Pledge

This is an original research which was conducted among Public Primary School Pupils in Nairobi County, Kenya. All research ethics were observed. The researchers obtained the necessary approvals.

Competing Interests

No financial, personal, or undue interests influenced the researcher to conduct this research article.

Author(s) Contributions

The researchers are the sole authors of this article.

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Ethical Considerations Statement

This article followed all ethical standards for research without direct contact with human or animal subjects.