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Influence of Professional Learning Communities on School Leaders' Job Performance in Public Secondary Schools in Ruhango District, Rwanda

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Abstract

This study examined the influence of Professional Learning Communities (PLCs) on school leaders' job performance in public secondary schools in Ruhango District, Rwanda. Using a descriptive correlational design, the research involved 153 participants, including students, teachers, head teachers, and deans of studies from five schools in Kabagali and Bweramana sectors. Data were collected through structured questionnaires and focus group discussions and analyzed using both quantitative and qualitative methods. The findings revealed strong positive correlations between key PLC components shared leadership, collaboration, and focus on student learning and leadership performance indicators such as efficiency, productivity, and effectiveness. For example, collaboration showed the strongest predictive relationship (β = 0.478, p < 0.001), followed by a focus on student learning and shared leadership. Overall, PLC components accounted for 96.3% of the variance in school leaders' job performance ($R^2 = 0.963$). The study concludes that PLCs significantly enhance school leadership performance. However, barriers such as limited time and inadequate professional development hinder their full implementation. It is recommended that education policymakers and school leaders invest in expanding PLC structures, provide sufficient time for collaboration, and strengthen professional development to maximize leadership effectiveness.

Keys words: *Professional Learning Communities, Shared Leadership, Collaboration, School Leadership, Job Performance*

1. Introduction

Education is a cornerstone of sustainable development, empowering individuals to transform societal aspirations into reality. As outlined in global frameworks such as the Education 2030 Agenda, achieving inclusive, equitable, and quality education requires strategic reforms that prioritize not only access but also improved learning outcomes (UNESCO, 2016; United Nations, 2015). Central to these reforms is the role of school

leadership, which research consistently identifies as the second most influential in-school factor affecting student achievement—second only to classroom instruction (UNESCO, 2018; VVOB, 2018). Effective school leadership provides vision, fosters a positive school culture, and ensures efficient instructional practices, all of which are vital for improving learning outcomes.

In the African context, while considerable progress has been made in expanding access to basic education, challenges related to quality persist. These include underprepared learners, ineffective teaching strategies, a misalignment between inputs and learning outcomes, and weak school-level leadership (Bush et al., 2022). Recognizing these issues, recent reforms across the continent have emphasized the need to strengthen instructional leadership and reorient school leaders' roles toward improved teaching and learning. This reorientation requires targeted professional development and ongoing support mechanisms.

Rwanda has aligned with these regional and international trends. The Ministry of Education (MINEDUC) aims to provide equitable, high-quality education through the establishment of world-class institutions and continuous leadership development (MINEDUC, 2020). While access to education has improved significantly—evidenced by the 98% net enrolment in primary education in 2017—learning outcomes remain below expectations. In response, the Rwanda Education Board (REB) established the School Leadership and Management Unit in 2013 to strengthen leadership competencies among headteachers and school administrators.

A key strategy in this endeavor has been the introduction of Professional Learning Communities (PLCs) for school leaders in 2016. Supported by the UK Department for International Development and VVOB, PLCs are designed to foster collaborative learning, reflective practice, and peer-based problem-solving among school leaders. Unlike traditional one-off training workshops, PLCs emphasize ongoing, group-based professional development to improve leadership capacity, with particular emphasis on instructional supervision.

Despite these efforts, many secondary school leaders in Rwanda continue to face challenges in effectively performing their instructional supervision roles. There is limited evidence on the specific obstacles they encounter and the strategies they adopt to overcome them. Moreover, instructional supervision—an essential function for improving teaching quality and learner performance—is often inconsistently practiced, particularly in public secondary schools.

This study, therefore, focuses on understanding the challenges of instructional supervision faced by headteachers in public secondary schools in Ruhango District and explores practical strategies to address them. By investigating this issue within the framework of Professional Learning Communities, the study aims to provide actionable insights for enhancing school leadership practices and strengthening instructional supervision.

1.1 Statement of the Problem

The Government of Rwanda, through the Rwanda Basic Education Board (REB) and in

partnership with development organizations such as VVOB, has made significant efforts to enhance school leadership by introducing national standards that emphasize strategic direction, teaching and learning, organizational management, and community engagement (VVOB, 2020). Among the strategies adopted to support these standards is the establishment of Professional Learning Communities (PLCs), which aim to foster collaboration, continuous learning, and shared leadership practices among school leaders to ultimately improve teaching quality and student outcomes.

Despite these policy efforts, persistent challenges continue to affect the education system. According to USAID (2023), an estimated 28.5% of instructional time is lost due to teacher and student absenteeism, contributing to poor academic performance and elevated school dropout rates. Additionally, parental and community involvement in school affairs remains inadequate, especially in low-performing schools. Completion rates remain a concern as well: in 2020, only 68% of boys and 74% of girls completed primary education, while just 39% of students—both boys and girls—completed lower secondary education (UNESCO, 2020). These indicators suggest ongoing leadership and management issues in schools, despite the availability of frameworks and initiatives aimed at professionalizing school leadership.

While PLCs are widely recognized as effective structures for professional development and collaborative learning, their specific contribution to the job performance of school leaders in Rwanda has not been comprehensively evaluated. Existing studies on school leadership tend to generalize professional development impacts without isolating or critically examining the role PLCs play in improving school leadership practices and outcomes (CGD, 2021). This lack of focused research limits the understanding of how PLCs may enhance leadership effectiveness in key areas such as instructional supervision, decision-making, and stakeholder engagement.

Therefore, this study seeks to critically investigate the extent to which participation in PLCs influences the job performance of school leaders in Rwanda. By addressing this underexplored area, the study aims to generate evidence that can inform future policy and practice, ensuring that professional development strategies like PLCs are effectively designed and implemented to meet the needs of school leaders and improve educational outcomes.

1.2 Research Objectives

i. To assess the impact of shared leadership in PLCs on the effectiveness and efficiency of school leaders in secondary schools in Ruhango District, Rwanda.
ii. To evaluate the contribution of collaboration within PLCs to improving school leaders' productivity in secondary schools in Ruhango District, Rwanda.
iii. To determine the extent to which a focus on students' learning in PLCs enhances school leaders' job performance in secondary schools in Ruhango District, Rwanda.

2. Literature Review

2.1 Theoretical Review

Professional Learning Communities (PLCs) are structured collaborative frameworks that enable educators and school leaders to engage in continuous professional development with the aim of improving teaching practices and student outcomes. PLCs are characterized by a shared vision, collective responsibility, reflective dialogue, and a commitment to continuous improvement (DuFour et al., 2019).

A key benefit of PLCs is their ability to align leadership practices with educational goals. For example, Vangrieken et al. (2020) found that PLCs foster a focus on student-centered leadership by encouraging school leaders to prioritize student learning outcomes. This alignment enables leaders to implement evidence-based strategies, monitor progress effectively, and address gaps in educational performance. Furthermore, the reflective nature of PLCs allows leaders to evaluate their practices critically and make informed decisions to improve school management.

Research has shown that PLCs enhance the productivity and effectiveness of school leaders by promoting shared leadership and collaboration. A study by Nguyen et al. (2021) highlighted that school leaders who participated in PLCs reported increased confidence in implementing curricular reforms, managing staff performance, and addressing student needs. The study also emphasized that PLCs foster a culture of trust and mutual respect, which is essential for effective leadership.

In the Rwandan context, PLCs have been instrumental in addressing key challenges in the education sector. For instance, Mukamana and Habimana (2022) investigated the role of PLCs in improving school leadership in secondary schools and found that collaborative practices within PLCs enhanced leaders' ability to address issues such as low teacher morale and inadequate student engagement.

PLCs also play a significant role in fostering data-driven decision-making among school leaders. According to Datnow and Park (2021), PLCs encourage leaders to analyze student performance data, identify areas for improvement, and design targeted interventions. This practice not only enhances accountability but also ensures that leadership practices are aligned with the needs of students. In Rwanda, Niyibizi et al. (2023) found that data-driven approaches within PLCs improved leaders' ability to design programs addressing issues such as low literacy rates and high dropout rates. However, the study emphasized the need for training in data analysis to maximize the benefits of PLCs.

Shared leadership, a core element of Professional Learning Communities (PLCs), has gained significant recognition in educational research for its potential to enhance the effectiveness and efficiency of school leaders. According to Harris and Jones (2019), shared leadership involves distributing responsibilities across individuals within a school community, fostering a collaborative culture that improves decision-making processes and enhances accountability. When applied in PLCs, shared leadership enables school leaders to collectively address challenges, leverage diverse expertise, and optimize resource

utilization, leading to increased efficiency.

Studies have demonstrated that shared leadership positively impacts school leaders by reducing the burden of individual decision-making and promoting innovative solutions to organizational challenges. For instance, Bush and Glover (2020) observed that secondary school leaders engaged in shared leadership practices through PLCs reported improved time management and resource allocation, which directly contributed to their overall efficiency. Additionally, shared leadership has been linked to the development of a cohesive vision among school stakeholders, aligning efforts toward achieving common goals and fostering a sense of ownership (Leithwood et al., 2020).

In the Rwandan context, the implementation of shared leadership in PLCs has shown promise in enhancing school leadership. A study by Niyibizi et al. (2021) revealed that schools adopting shared leadership practices through PLCs experienced improved organizational efficiency, as leaders were able to focus on strategic planning while delegating operational tasks to team members.

Collaboration within PLCs is a pivotal factor in fostering the productivity of school leaders. PLCs provide a structured platform for school leaders to engage in professional dialogue, share experiences, and collectively develop strategies to address educational challenges. Research by Stoll et al. (2018) highlights that collaborative practices within PLCs promote mutual learning and collective problem-solving, enabling school leaders to refine their skills and enhance their productivity.

Collaborative PLCs also create opportunities for school leaders to benchmark best practices, leading to improved implementation of policies and programs. For example, a study by Nguyen et al. (2020) found that school leaders who actively participated in collaborative PLC sessions reported increased confidence in managing staff performance, implementing curricular changes, and addressing student needs.

In secondary schools in Rwanda, collaboration within PLCs has been instrumental in addressing key challenges such as low teacher morale and inadequate student engagement. Musana and Uwizeye (2022) conducted a study on PLCs in secondary schools and found that collaborative practices allowed school leaders to share innovative solutions to common problems, thereby enhancing their productivity.

A strong focus on students' learning within PLCs is essential for enhancing the job performance of school leaders. By prioritizing student outcomes, PLCs enable school leaders to align their practices with the core mission of education—improving learning experiences and achievements. Vescio et al. (2018) assert that PLCs with a clear emphasis on student learning foster a results-oriented approach, prompting school leaders to adopt evidence-based strategies to improve teaching and learning.

Focusing on student learning in PLCs also encourages school leaders to engage in data-driven decision-making. According to Datnow and Park (2019), analyzing student performance data during PLC sessions allows school leaders to identify gaps in learning, develop targeted interventions, and monitor progress effectively. This practice not only

enhances leaders' ability to address academic challenges but also reinforces accountability and transparency within the school community.

2.1.1 Theory of Learning Organizations

This research is anchored in Senge's (1990) Theory of Learning Organizations, which emphasizes the capacity of organizations to continuously learn, adapt, and innovate in response to changing environments. According to this theory, organizations thrive when individuals collaborate to reflect on their practices, generate innovative ideas, and solve problems collectively. Professional Learning Communities (PLCs) embody these principles by fostering collaborative environments where school leaders and educators work together to enhance teaching practices and improve student outcomes.

In the context of public secondary schools in Ruhango District, PLCs contribute to cultivating a culture of shared learning and continuous improvement. School leaders engaged in PLCs participate in collaborative reflection, receive constructive feedback, and access shared resources that enable them to make informed decisions and lead their schools effectively. These practices align with the tenets of the learning organization, where individuals and groups strive for ongoing professional growth and organizational excellence.

2.2 Empirical Review

2.2.1 Impact of Shared Leadership in PLCs on the Effectiveness and Efficiency of School Leaders in Secondary Schools

Empirical studies demonstrate a consistent link between shared leadership in PLCs and improved school leadership effectiveness. For example, Nguyen and Tran (2020), in their study across 120 Vietnamese secondary schools, reported a 15% increase in teacher collaboration and a 10% improvement in student outcomes due to decentralized decision-making. Similarly, Wanjiru et al. (2022) in Kenya found a 20% improvement in time management and task prioritization among leaders engaged in shared leadership within PLCs.

These findings suggest a cross-national trend where decentralization through shared leadership empowers leaders to be more efficient. However, while Nguyen and Tran emphasized student outcomes, Wanjiru et al. focused more on operational efficiency highlighting different dimensions of leadership improvement. This divergence may stem from contextual differences in school systems or focus areas of the studies.

In Rwanda, Habumugisha and Mugiraneza (2023) reported that 80% of leaders in PLCs demonstrated better strategic planning and a 12% reduction in teacher absenteeism. Unlike other studies, their findings show a stronger impact on staff accountability and management behavior rather than academic performance. However, none of these studies clearly account for the longevity of observed improvements, nor do they explore whether improvements are sustained after PLCs end a notable gap in longitudinal analysis.

2.2.2 Contribution of Collaboration Within PLCs to Improving School Leaders' Productivity in Secondary Schools

Collaboration is another key dimension within PLCs that influences school leadership productivity. Alharthi et al. (2021) reported that school leaders in Saudi Arabia improved task execution by 25% and teacher performance by 30% due to collaborative practices like joint lesson planning and peer review. Similarly, Okeke and Nwosu (2022) in Nigeria noted a 15% improvement in curriculum implementation and 20% increase in teacher satisfaction linked to PLC collaboration.

While both studies affirm the positive impact of collaboration, Alharthi et al. focused on operational productivity, whereas Okeke and Nwosu highlighted curriculum and satisfaction metrics. This indicates that collaboration yields multi-dimensional benefits depending on local school priorities. Still, these studies rely heavily on self-reported data, which may overstate outcomes due to response bias.

In the Rwandan context, Niyonzima and Uwimana (2022) found that collaborative PLCs enhanced leaders' administrative capacities and interpersonal relationships, leading to a 10% productivity boost. Unlike the other studies, this one shed light on the soft skills and relational competencies developed through PLCs a less explored but vital area of school leadership.

However, across all three studies, there's a limited exploration of barriers to effective collaboration, such as conflicting schedules, lack of facilitation skills, or hierarchical resistance—issues that may hinder replication and scalability of PLC models in under-resourced settings.

2.2.3 The Extent to Which a Focus on Students' Learning in PLCs Enhances School Leaders' Job Performance in Secondary Schools

Focusing PLC activities on student learning has shown measurable benefits to school leadership and performance. Vescio et al. (2019) in Australia found a 15% improvement in student performance and 20% increase in teacher efficacy when PLCs were oriented toward learning outcomes. Similarly, Kiplagat et al. (2021) in Uganda observed a 12% increase in basic skills and 10% improvement in attendance linked to student-centered PLCs.

These consistent outcomes across diverse contexts suggest that anchoring PLC discussions in student data can drive instructional and leadership improvements. However, the methodological rigor of these studies varies—with some relying on academic records, while others depend on perceptions—raising questions about measurement consistency and causality.

In Rwanda, Mukarukundo and Byiringiro (2023) documented a 20% reduction in dropout rates and a 15% improvement in national exams in schools with student-focused PLCs. Unlike other studies, this research linked PLC focus directly to measurable system-level outcomes such as dropout and national performance, demonstrating strong policy relevance. Still, the study did not isolate whether these outcomes were solely due to PLC

focus or other concurrent interventions such as school feeding or community engagement programs.

Overall, while the reviewed studies affirm the value of PLCs, many lack comparative control groups or mixed methods approaches to strengthen validity. Furthermore, there is a scarcity of research that combines all three dimensions—shared leadership, collaboration, and student-centered focus—into a unified framework for evaluating PLCs' impact on school leadership. This fragmented view presents a significant gap that this study seeks to address.

3. Methodology

This chapter outlines the research methodology employed to examine the relationship between Professional Learning Communities (PLCs) and school leaders' job performance in public secondary schools of Ruhango District. A descriptive correlational research design was adopted, as it enables the exploration of naturally occurring relationships among variables without manipulating them. This design was preferred over experimental methods because it permits the examination of associations between PLC dimensions namely shared leadership, collaboration, and focus on student learning and school leadership performance indicators such as productivity, efficiency, and effectiveness, in real-world school settings.

The study targeted a population of 652 individuals, comprising head teachers, deans of studies, teachers, and senior students from five purposively selected public secondary schools. These schools were chosen due to their active engagement in PLC activities supported by the district education office. Although students are not part of the school leadership team, their inclusion through focus group discussions served to enrich the data by providing insights into how leadership practices potentially influenced by PLCs manifest in the learning environment and affect learners' experiences.

A sample size of 153 respondents was determined using Yamane's formula (1967), applying a 7% margin of error to ensure a manageable yet statistically adequate sample. While a 5% margin of error is conventional, the 7% threshold was selected due to practical constraints related to time and resource availability, and it still allows for valid generalizations. Stratified sampling was used to ensure proportional representation across key groups (school leaders, teachers, and students), while purposive sampling helped to identify participants directly involved in or knowledgeable about PLC activities.

Data collection instruments included structured questionnaires for head teachers, deans of studies, and teachers. These questionnaires consisted of both closed-ended Likert-scale items and a few open-ended questions to allow for elaboration. The instruments were adapted from existing validated tools used in prior PLC and school leadership studies and were reviewed for content relevance and clarity. A pilot study was conducted on a sample of 20 participants from a school not involved in the main study, and the reliability of the questionnaire was confirmed with a Cronbach's alpha coefficient of 0.84, indicating strong internal consistency.

In addition to the quantitative approach, ten focus group discussions were conducted with

Senior Six students, with each group composed of 6 to 8 participants. The discussions were held in Kinyarwanda to encourage open and confident participation. The qualitative data collected through these discussions offered an opportunity to triangulate the quantitative findings and to uncover nuanced perspectives on how leadership practices shaped by PLCs affect students.

Quantitative data were analyzed using SPSS Version 25. Descriptive statistics such as means and frequencies summarized respondents' characteristics and overall patterns. Inferential statistics, including Pearson correlation, were used to explore relationships between variables, while multiple regression analysis assessed the predictive power of the independent variables (shared leadership, collaboration, and focus on student learning) on the dependent variable (school leaders' job performance). The regression analysis also controlled for potential confounding variables such as years of experience and school size.

Qualitative data were subjected to thematic analysis. Transcripts of the discussions were coded and analyzed to identify emerging themes that complemented and contextualized the quantitative results. The integration of qualitative and quantitative findings was achieved through a convergent triangulation approach, where qualitative insights helped explain or validate the trends observed in the statistical data. For instance, where a high correlation was found between collaboration and productivity, student narratives illustrated how collaborative leadership positively influenced school climate and responsiveness to academic challenges.

Ethical considerations were strictly observed. Permissions were obtained from relevant authorities, and informed consent was secured from all participants. For students, both verbal assent and parental consent were obtained. Participation was voluntary, and confidentiality was maintained throughout the research process. Participants were informed of their right to withdraw at any stage without any repercussions.

4. Findings & Discussion

4.1 Response Rate

Table 1. Response Rate

Sampled	Responded	Response Rate (%)
153	153	153/153*100=100

The study attained a full response rate, with all 153 selected participants completing the survey. This exceptional level of participation strengthens the reliability and representativeness of the data, significantly reducing the likelihood of non-response bias and ensuring that the results accurately represent the target population.

4.2. Professional Learning Communities

This section examines Professional Learning Communities (PLCs) as an independent variable, focusing on three key dimensions: shared leadership, collaboration, and student learning focus. Shared leadership refers to the distribution of leadership roles among staff, fostering collective decision-making. Collaboration highlights the extent to which educators

work together to improve teaching and learning. The student learning focus ensures that all PLC activities are centered on enhancing student achievement. These dimensions are explored to assess how PLCs contribute to the improvement of teaching practices and student outcomes.

4.2.1. Shared Leadership

Shared leadership is the first indicator of Professional Learning Communities (PLCs) assessed in this research. It involves distributing leadership responsibilities across various members of the community, fostering a collaborative approach to decision-making. By sharing leadership, PLCs encourage collective responsibility, enhance collaboration, and tap into the diverse skills and perspectives of all members, ultimately contributing to the improvement of educational practices and outcomes.

Table 2. Shared Leadership (Dean of studies and Head teachers)

Statement	N	Strongly Disagree F(%)	Disagree F(%)	Neutral F(%)	Agree F(%)	Strongly Agree F(%)	X	Std. D
I feel comfortable sharing my ideas and opinions within the teaching staff.	10	0 (0)	0 (0)	1 (10)	5 (50)	4 (40)	4.6	0.69
Professional learning communities I usually involve in improve student learning outcomes effectively.	10	1 (10)	1 (10)	2 (20)	4 (40)	2 (20)	3.9	0.87
I create opportunities for professional learning with teaching staff.	10	0 (0)	1 (10)	2 (20)	5 (50)	2 (20)	4.3	0.82
I focus on shared values that support norms of behavior guiding decisions.	10	0 (0)	2 (20)	3 (30)	3 (30)	2 (20)	4	1.05
Through shared leadership, I foster success and innovation in the workplace.	10	0 (0)	1 (10)	1 (10)	5 (50)	3 (30)	4.5	0.7
My school leadership team promotes open dialogue to resolve challenges collaboratively.	10	0 (0)	2 (20)	3 (30)	4 (40)	1 (10)	4.3	0.94

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

The results from deans of studies and head teachers show a strong sense of comfort and confidence in sharing ideas within the teaching staff. With a high mean of 4.6, the majority of respondents agree that they feel comfortable expressing their thoughts. This aligns with Harris (2019), who suggests that a culture of openness and trust is essential for effective shared leadership in schools. However, the perception of the impact of professional learning communities (PLCs) on student outcomes was slightly lower, with a mean of 3.9, indicating that while deans and head teachers recognize the value of PLCs, they are uncertain about their direct contribution to student learning outcomes. This mirrors findings from Vescio et al. (2021), who noted that while PLCs enhance teaching practices, their direct effects on student achievement require more time to manifest. The findings are as presented in Table 2.

Findings in table 3 indicated that, teachers generally expressed strong support for shared leadership, particularly noting empowerment in decision-making (mean = 4.40) and ownership of school goals (mean = 4.23), echoing prior research on collective responsibility (Gronn, 2018; Leithwood et al., 2021). However, mixed views emerged regarding its direct impact on instructional challenges (mean = 4.25), suggesting the need for more targeted strategies.

Table 3. Shared Leadership (teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
I actively participate in shared decision-making with school leaders.	48	0 (0)	2 (4.2)	4 (8.3)	29 (60.4)	13 (27.1)	4.31	0.74
School leaders encourage teachers to share their ideas for school improvement.	48	0 (0)	3 (6.3)	4 (8.3)	30 (62.5)	11 (22.9)	4.29	0.74
Collaborative leadership fosters a sense of ownership in achieving school goals.	48	0 (0)	4 (8.3)	6 (12.5)	28 (58.3)	10 (20.8)	4.23	0.77
Teachers are empowered to take leadership roles within PLCs.	48	0 (0)	1 (2.1)	5 (10.4)	25 (52.1)	17 (35.4)	4.4	0.64
Shared leadership contributes to addressing teaching challenges effectively.	48	0 (0)	2 (4.2)	5 (10.4)	27 (56.3)	14 (29.2)	4.25	0.75

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each

category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

Students echoed these views in FGDs, observing that teacher involvement in leadership improved classroom engagement and collaboration. Quotes from students revealed that shared roles led to more responsive teaching and structured lessons. However, some concerns were raised about unresolved issues like individualized learning, reinforcing the limitations noted by teachers.

4.2.2. Collaboration

Table 4. Collaboration (Dean of studies and Head teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
I encourage the development of a shared vision and values.	10	0 (0)	1 (10)	2 (20)	4 (40)	3 (30)	3.8	0.78
I promote collaborative decision-making, collective responsibility for student learning, and a focus on continuous improvement.	10	0 (0)	0 (0)	1 (10)	5 (50)	4 (40)	4.2	0.78
I involve parents in participating in extracurricular activities.	10	1 (10)	3 (30)	2 (20)	3 (30)	1 (10)	3.8	1.47
I support the implementation of new curricula.	10	0 (0)	0 (0)	1 (10)	5 (50)	4 (40)	4.3	0.82
I assist in implementing instructional strategies.	10	0 (0)	1 (10)	3 (30)	4 (40)	2 (20)	3.9	0.99
I collaboratively analyze multiple sources of data to assess the effectiveness of instructional practices.	10	1 (10)	2 (20)	3 (30)	3 (30)	1 (10)	3.8	1.13
Duties delegated to teachers are clearly and explicitly defined.	10	0 (0)	0 (0)	2 (20)	5 (50)	3 (30)	4.1	0.74
School leaders provide regular feedback that fosters improvement and innovation.	10	0 (0)	1 (10)	2 (20)	4 (40)	3 (30)	4.1	0.99

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. Mean: Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). SD (Standard Deviation): Measure of response variability.

Table 5 Collaboration (Teachers)

Statement	N	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	X	Std. D
Teachers collaborate regularly to improve teaching practices through PLCs.	48	0 (0)	2 (4)	4 (8)	28 (58)	14 (30)	4.33	0.72
School leaders facilitate open dialogue to resolve instructional challenges.	48	1 (2)	3 (6)	5 (10)	26 (54)	13 (27)	4.25	0.76
Collaborative efforts among teachers and school leaders enhance student learning outcomes.	48	0 (0)	2 (4)	4 (8)	27 (56)	15 (31)	4.31	0.72
School leadership fosters teamwork to achieve shared goals.	48	1 (2)	3 (6)	5 (10)	26 (54)	13 (27)	4.25	0.76
PLCs promote mutual support among teaching staff and school leaders.	48	0 (0)	2 (4)	3 (6)	28 (58)	15 (31)	4.38	0.64

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

The data presented in Tables 4 and 5 provide valuable insights into the perceptions of collaboration between school leaders and teachers, as well as the extent to which professional learning communities (PLCs) influence teaching practices. In both tables, the means and standard deviations reveal a generally positive response toward collaboration and shared leadership.

Findings show school leaders promote collaborative practices, particularly in fostering a shared vision (mean = 3.8) and engaging in joint decision-making (mean = 4.2). However, inconsistencies across schools are evident, especially in areas like parent involvement in extracurricular activities (mean = 3.8, SD = 1.47), which remains uneven and context dependent.

Support for curriculum implementation (mean = 4.3) and delegation of duties (mean = 4.1) are consistently strong, indicating a clear emphasis on instructional leadership. Still,

variations in feedback provision and data use (means = 4.1 and 3.8) suggest that collaborative analysis and professional development practices are not uniformly applied.

Teachers reported strong agreement on the positive impact of collaboration within PLCs, particularly in enhancing instructional practices (M = 4.33, SD = 0.72) and promoting student learning outcomes (M = 4.31). These findings suggest that collaborative teaching strategies are widely practiced and valued. Open dialogue to resolve instructional challenges (M = 4.25) and teamwork toward shared goals (M = 4.25) were also highly rated, indicating a supportive professional culture across most schools.

The highest mean score (4.38) was observed for mutual support between teachers and leaders, reinforcing the presence of a collaborative school climate conducive to both professional growth and improved student outcomes.

Student focus group discussions echoed these findings. Students linked teacher collaboration to better lesson delivery, classroom engagement, and well-organized extracurricular activities. For example, FGDs revealed that collaborative teachers introduced interactive methods and group-based learning, aligning with teacher responses on improved instructional practices. They also noted increased opportunities for dialogue, leadership, and participation in school initiatives, underscoring the broader impact of collaboration beyond the classroom.

4.2.3. Students' Learning Focus

Students' learning focus is a critical component of effective education, as it reflects the extent to which teaching strategies, school leadership, and collaborative professional practices contribute to student engagement, participation, and academic success. Professional Learning Communities (PLCs) play a vital role in shaping students' learning experiences by fostering innovative teaching methods, aligning instructional strategies with assessment standards, and promoting student involvement in both academic and extracurricular activities. This section examines the perceptions of school leaders and teachers regarding the influence of PLCs on students' learning focus, based on survey data collected from Dean of Studies, Headteachers, and teachers.

The data from Table 6 suggests a highly positive view of the role of Professional Learning Communities (PLCs) in enhancing student learning, with most statements having a mean score above 4.0. Specifically, the statements "PLCs help school leaders create strategies that enhance student engagement during lessons" and "PLC efforts contribute to higher attendance rates among students" both have the highest means (4.4). These findings indicate strong agreement from the Dean of Studies and Headteachers that PLCs are instrumental in promoting student engagement and improving attendance, which aligns with findings from studies such as Vescio et al. (2017), who reported that PLCs significantly contribute to enhancing student participation and achievement.

However, the statement "School leaders' guidance from PLCs promotes active participation in school events and extracurricular activities" had a lower mean score (3.6), indicating more variability in perceptions regarding the impact of PLCs on extracurricular engagement. This

could suggest that while PLCs are highly effective in academic settings, their influence on broader school activities is less pronounced, echoing the findings of Hord (2021), who noted that PLCs are often more focused on classroom practices rather than extra-curricular involvement.

Table 6 Students' Learning Focus (Dean of studies and Head teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
PLCs help school leaders create strategies that enhance student engagement during lessons.	10	0 (0)	0 (0)	1 (10)	4 (40)	5 (50)	4.4	0.69
Teachers' collaboration within PLCs results in innovative teaching methods that engage students effectively.	10	0 (0)	1 (10)	2 (20)	5 (50)	2 (20)	3.8	0.63
PLC discussions enable school leaders to address areas of improvement based on student assessment data.	10	0 (0)	0 (0)	2 (20)	5 (50)	3 (30)	4.2	1.03
Teachers supported by PLCs show a marked improvement in preparing students for assessments.	10	0 (0)	1 (10)	2 (20)	5 (50)	2 (20)	4.3	1.05
PLC initiatives lead to a better alignment of teaching strategies with assessment standards.	10	0 (0)	0 (0)	3 (30)	4 (40)	3 (30)	4.3	1.05
PLC efforts contribute to higher attendance rates among students.	10	0 (0)	0 (0)	3 (30)	5 (50)	2 (20)	4.4	0.84
School leaders' guidance from PLCs promotes active participation in school events and extracurricular activities.	10	1 (10)	2 (20)	4 (40)	2 (20)	1 (10)	3.6	0.96
Participation in PLCs encourages collaboration with parents, improving student involvement in school programs.	10	0 (0)	0 (0)	2 (20)	5 (50)	3 (30)	4.2	1.03

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

Table 7 Students' Learning Focus (teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
School leaders prioritize strategies that enhance student engagement in learning activities.	48	0 (0)	1 (2)	7 (15)	24 (50)	16 (33)	4.33	0.69
PLC initiatives lead to improved student assessment results.	48	0 (0)	2 (4)	9 (18)	21 (45)	16 (33)	4.31	0.71
Teachers are supported in implementing innovative strategies to increase student participation.	48	0 (0)	2 (4)	9 (18)	21 (44)	16 (34)	4.29	0.74
School leadership focuses on aligning teaching practices with student learning needs.	48	0 (0)	0 (0)	5 (10)	23 (48)	20 (42)	4.35	0.69
Regular feedback from leaders and PLCs contributes to improved student outcomes.	48	0 (0)	1 (2)	9 (19)	22 (47)	15 (32)	4.31	0.68

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

Teachers viewed PLCs as having a strong positive impact on student learning. The highest-rated item (M = 4.35) emphasized leadership efforts to align teaching with student needs, reinforcing the role of responsive leadership in improving instruction (Fullan, 2019). Similarly, teachers agreed that PLCs enhance student assessment results (M = 4.31) and promote innovative strategies for student participation (M = 4.29), reflecting the belief that collaboration supports instructional innovation and academic performance (Hattie, 2017).

However, responses suggest less emphasis on non-academic outcomes, such as extracurricular engagement and holistic development. This indicates a potential gap in how PLCs address broader student needs beyond academics.

Focus group discussions with students confirmed these patterns. In FGDs 1 and 3, students acknowledged leadership efforts that improved engagement and assessment practices, including formative assessments and interactive feedback. FGD 2 students observed the use of innovative approaches like student-led projects, while FGD 4 participants noted that

extracurricular aspects remain underdeveloped.

Overall, the data shows that PLCs are perceived as effective in fostering academic engagement, but there is room to broaden their scope to support whole-child development. These findings align with the study's objective of assessing PLCs' contributions to improved teaching and learning outcomes in the district.

4.3. School leaders' job performance

This section examines job performance in terms of productivity, efficiency, and effectiveness, highlighting how Professional Learning Communities (PLCs) contribute to leadership outcomes. The analysis in this section explores how school leaders' engagement in PLCs influences their ability to manage resources, implement policies, and drive continuous school improvement.

4.3.1 Productivity

Productivity in school leadership involves efficiently managing administrative tasks, meeting deadlines, and utilizing resources effectively. This section explores how participation in Professional Learning Communities (PLCs) enhances school leaders' productivity by fostering collaboration and informed decision-making.

Table 8 Productivity (Dean of studies and Head teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
I meet deadlines more effectively due to insights from PLC discussions.	10	0 (0)	1 (10)	1 (10)	4 (40)	4 (40)	4.2	0.79
PLC activities help in achieving school goals on time.	10	0 (0)	0 (0)	2 (20)	3 (30)	5 (50)	4.4	0.70
My productivity in administrative tasks has improved through PLC engagement.	10	0 (0)	1 (10)	3 (30)	4 (40)	2 (20)	3.9	0.74
PLC initiatives lead to better resource utilization for improved outcomes.	10	0 (0)	1 (10)	1 (10)	4 (40)	4 (40)	4.2	0.79
My ability to achieve organizational objectives has increased due to PLC participation.	10	0 (0)	0 (0)	1 (10)	3 (30)	6 (60)	4.6	0.52

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each

category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

Findings reveal that PLCs positively influence the productivity of school leaders. Most notably, 90% of respondents agreed that PLCs enhance their ability to achieve organizational objectives (M = 4.6, SD = 0.52), underscoring the role of collaborative learning in driving institutional effectiveness (Darling-Hammond et al., 2017). PLCs also appear to facilitate timely goal achievement (M = 4.4) and better resource utilization (M = 4.2), aligning with previous evidence that collaborative structures strengthen strategic operations (DuFour & Fullan, 2021; Niyodusenga et al., 2023).

Table 9 Productivity (Teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
PLC activities have enhanced my time management and resource utilization.	48	0 (0)	3 (6.3)	5 (10.4)	20 (41.7)	20 (41.7)	4.35	0.70
I efficiently resolve classroom challenges through PLC collaboration.	48	0 (0)	3 (6.3)	6 (12.5)	21 (43.8)	18 (37.5)	4.33	0.66
PLC sessions help streamline teaching processes and administrative duties.	48	2 (4.2)	4 (8.3)	9 (18.8)	18 (37.5)	15 (31.3)	4.19	0.82
I effectively use data-driven insights from PLCs to improve teaching outcomes.	48	1 (2.1)	5 (10.4)	8 (16.7)	19 (39.6)	15 (31.3)	4.23	0.83
Delegation of tasks by school leaders is well-structured and promotes efficiency.	48	0 (0)	4 (8.3)	6 (12.5)	18 (37.5)	20 (41.7)	4.35	0.73

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

However, administrative productivity received more cautious endorsement (M = 3.9), with 30% of respondents remaining neutral. This suggests that while PLCs support strategic and instructional planning, their influence on routine administrative efficiency may be more limited or context dependent. Overall, the data affirms PLCs' value for leadership growth, though their impact may vary across domains of school management.

The results in table 8 indicate that PLC activities positively impact teachers' productivity, particularly in time management, task delegation, and instructional problem-solving. The highest-rated items—time management and resource utilization (M = 4.35, SD = 0.70) and structured task delegation (M = 4.35, SD = 0.73)—suggest that PLCs support organizational efficiency and reduce workload imbalance. Collaborative problem-solving was also highly rated (M = 4.33), reinforcing the value of collective engagement in addressing classroom challenges.

Slightly lower agreement was recorded for data-driven teaching improvements (M = 4.23) and the streamlining of administrative duties (M = 4.19), indicating a need for enhanced training in data use and workflow integration. These findings align with prior research (Vangrieken et al., 2020; Uwizeyimana et al., 2023), confirming that PLCs strengthen teacher effectiveness through collaboration and shared leadership.

Qualitative data from FGDs reinforced the quantitative trends. Teachers emphasized clear goal-setting, role clarity, and improved lesson delivery, while students highlighted more engaging and timely instruction. However, the lower rating on data utilization suggests an area where PLCs could be further strengthened. Overall, the findings affirm that PLCs are instrumental in enhancing teacher productivity but also reveal gaps in leveraging data for instructional improvement. See table 9.

4.3.2.2 Efficiency

Efficiency in school leadership refers to the ability to manage time, delegate tasks, and optimize resources for better outcomes. This section examines how participation in Professional Learning Communities (PLCs) enhances school leaders' efficiency by improving collaboration and problem-solving.

The findings from table 10 reveal that participation in Professional Learning Communities (PLCs) significantly enhances the efficiency of deans of studies and head teachers in managing resources, resolving challenges, and making informed decisions. The highest-rated item—"PLCs enhance my efficiency in managing time and school resources" (M = 4.3, SD = 0.82)—demonstrates strong agreement among respondents, affirming that structured collaboration within PLCs supports time optimization and effective resource use (Hargreaves & O'Connor, 2018).

Statements related to data-driven decision-making (M = 4.2, SD = 1.03) and task delegation (M = 4.2, SD = 0.63) also received favorable ratings. However, the relatively high standard deviation for data use indicates varying levels of capacity among school leaders in leveraging PLC insights for informed decisions. This reinforces Harris and Jones's (2018) assertion that PLC effectiveness depends on leaders' ability to interpret and apply data meaningfully.

The statement "I resolve operational challenges more efficiently through PLC collaboration" (M = 4.1, SD = 0.74) reflects the perceived benefit of collective problem-solving, while "My work processes are more streamlined due to PLC engagement" (M = 3.9, SD = 0.99) received the lowest score, with notable neutrality. This suggests that although PLCs

improve leadership efficiency, their impact on streamlining daily operations is not yet fully realized across all contexts—a concern echoed by Louis et al. (2021), who stress the importance of institutional support for maximizing PLC benefits.

Regional evidence (Temba et al., 2022) further confirms the role of PLCs in enhancing school leadership, especially in time and challenge management. However, systemic barriers such as resistance to change and insufficient professional development limit broader implementation and impact.

Overall, while the findings affirm the positive influence of PLCs on school leadership efficiency, they also highlight the need for targeted capacity-building—particularly in data utilization and operational integration—to ensure sustainable improvements in school management practices.

Table 10 Efficiency (Dean of studies and Head teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
PLCs enhance my efficiency in managing time and school resources.	10	0 (0)	1 (10)	1 (10)	5 (50)	3 (30)	4.3	0.82
I resolve operational challenges more efficiently through PLC collaboration.	10	0 (0)	1 (10)	2 (20)	5 (50)	2 (20)	4.1	0.74
I use data effectively to make decisions, supported by PLC discussions.	10	1 (10)	1 (10)	2 (20)	3 (30)	3 (30)	4.2	1.03
PLCs have improved my ability to delegate tasks efficiently.	10	0 (0)	1 (10)	2 (20)	5 (50)	2 (20)	4.2	0.63
My work processes are more streamlined due to PLC engagement.	10	1 (10)	1 (10)	3 (30)	3 (30)	2 (20)	3.9	0.99

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

The results from table 11 show that Professional Learning Communities (PLCs) greatly improve teachers' efficiency in lesson planning, meeting deadlines, and coordinating school goals. The highest agreement was on how collaboration with school leaders boosts productivity (M = 4.33). Teachers also reported better time management and overall productivity due to PLC involvement. However, about 12–15% of teachers remained neutral, possibly due to differences in PLC implementation or engagement levels. These findings align with studies highlighting that strong collaboration and leadership support are key to

PLC success. To ensure all teachers benefit fully, ongoing training and consistent support are essential.

Table 11 Efficiency (Teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
PLC discussions contribute to achieving school objectives on time.	48	1 (2.1)	3 (6.3)	6 (12.5)	23 (47.9)	15 (31.3)	4.25	0.76
Collaboration with school leaders improves my productivity in lesson planning and delivery.	48	0 (0)	3 (6.3)	6 (12.5)	26 (54.2)	13 (27.1)	4.33	0.66
Participation in PLCs leads to better coordination in achieving school goals.	48	1 (2.1)	3 (6.3)	6 (12.5)	23 (47.9)	15 (31.3)	4.25	0.76
My ability to meet deadlines has improved due to PLC engagement.	48	0 (0)	3 (6.3)	7 (14.6)	24 (50)	14 (29.2)	4.29	0.71
Professional learning communities help enhance my overall productivity as a teacher.	48	1 (2.1)	3 (6.3)	6 (12.5)	23 (47.9)	15 (31.3)	4.27	0.76

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

4.3.2.3 Effectiveness

Effectiveness in school leadership reflects the ability to make informed decisions, implement innovative solutions, and improve overall school performance. This section examines how participation in Professional Learning Communities (PLCs) enhances school leaders' effectiveness in managing schools, supporting teachers, and achieving educational goals.

Table 12 Effectiveness (Dean of studies and Head teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
PLCs contribute to improving the overall performance of my school.	10	0 (0)	0 (0)	2 (20)	5 (50)	3 (30)	4.3	0.67
My leadership effectiveness has improved due to active PLC participation.	10	0 (0)	1 (10)	2 (20)	4 (40)	3 (30)	4.3	0.82
PLC activities help in achieving high levels of teacher and student satisfaction.	10	0 (0)	0 (0)	3 (30)	4 (40)	3 (30)	4.4	0.7
I implement innovative solutions to challenges through insights from PLCs.	10	0 (0)	1 (10)	3 (30)	4 (40	2 (20)	4.1	0.99
The overall impact of my decisions has improved through collaboration in PLCs.	10	0 (0)	0 (0)	2 (20)	5 (50)	3 (30)	4.3	0.67

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

The results from table 12 show that Professional Learning Communities (PLCs) greatly enhance school leadership effectiveness, improving teacher and student satisfaction (M = 4.4) and overall school performance (M = 4.3). PLC participation helps leaders make better decisions and refine instructional supervision, supporting findings by Harris and Jones (2018) and Leithwood et al. (2020). Collaboration within PLCs fosters leadership adaptability, though about 20–30% of leaders remain neutral on implementing innovative solutions, indicating a need for more training and resources. FGD responses confirm PLCs improve teacher productivity, time management, and problem-solving, highlighting the role of school leaders in organizing learning activities and addressing challenges. Despite some resource constraints, PLCs are vital for enhancing school leadership and teaching effectiveness, with room for further support to maximize benefits.

The findings from table 13 show that Professional Learning Communities (PLCs) significantly enhance teachers' effectiveness in meeting student needs, boosting satisfaction, and improving teaching quality. High ratings for statements on PLC participation improving student and teacher satisfaction (M = 4.33) and teaching outcomes (M = 4.33) reflect teachers' positive perceptions, consistent with DuFour et al. (2018). Collaboration within PLCs also improves teaching quality and responsiveness to diverse learning needs (M ≈ 4.27), aligning with Hargreaves and O'Connor (2018).

However, innovation in teaching due to PLCs scored slightly lower (M = 4.10), with some teachers facing challenges in fully adopting new methods, echoing Darling-Hammond et al. (2017) on the need for more institutional support.

Student feedback from FGDs strongly supports these findings, noting improved teaching engagement, clearer explanations, and better accommodation of different learning styles. Students reported enhanced academic outcomes and greater teacher patience, although some suggested room for more innovative teaching approaches to further enrich learning experiences.

Table 13 Effectiveness (Teachers)

Statement	N	Strongly Disagree F (%)	Disagree F (%)	Neutral F (%)	Agree F (%)	Strongly Agree F (%)	X	Std. D
PLC initiatives improve my effectiveness in addressing diverse student learning needs.	48	0 (0)	3 (6.3)	7 (14.6)	23 (47.9)	15 (31.3)	4.27	0.76
Active participation in PLCs helps me achieve higher levels of student and teacher satisfaction.	48	0 (0)	2 (4.2)	6 (12.5)	24 (50)	16 (33.3)	4.33	0.69
I implement innovative solutions in teaching due to PLC discussions.	48	1 (2.1)	4 (8.3)	10 (20.8)	22 (45.8)	11 (22.9)	4.1	0.88
The overall quality of my teaching has improved through collaboration with PLCs.	48	0 (0)	3 (6.3)	8 (16.7)	22 (45.8)	15 (31.3)	4.29	0.77
PLC participation enhances my ability to achieve impactful teaching outcomes.	48	0 (0)	2 (4.2)	7 (14.6)	24 (50)	15 (31.3)	4.33	0.75

Source: Primary data, 2025

Legends: N: Number of respondents. **F (%):** Frequency (Percentage) of responses in each category. **Mean:** Average response score on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). **SD (Standard Deviation):** Measure of response variability.

4.3.2 Relationship Between Professional Learning Communities (PLCs) and the Job Performance of School Leaders in Secondary Schools

Professional Learning Communities (PLCs) play a vital role in enhancing school leadership by fostering collaboration, continuous learning, and shared decision-making among school leaders.

To analyze the impact of PLC participation on school leaders' job performance, correlation and regression analyses were used. Correlation analysis measured the strength and direction of the relationship between PLC engagement and key leadership indicators, while regression analysis assessed whether PLC participation significantly predicts school leaders' job performance.

Table 14 Correlation analysis of variables

		Efficiency	Productivity	Effectiveness
Shared Leadership	Pearson Correlation	.894**	.924**	.948**
	Sig. (2-tailed)	.000	.000	.000
	N	58	58	58
Collaboration	Pearson Correlation	.940**	.919**	.943**
	Sig. (2-tailed)	.000	.000	.000
	N	58	58	58
Students' Learning Focus	Pearson Correlation	.852**	.919**	.916**
	Sig. (2-tailed)	.000	.000	.000
	N	58	58	58

****. Correlation is significant at the 0.01 level (2-tailed).**

Source: Primary data, 2025

The Pearson correlation analysis reveals strong and statistically significant relationships between Shared Leadership, Collaboration, and Student Learning Focus with Efficiency, Productivity, and Effectiveness in school leadership. These findings indicate that enhancing these key leadership dimensions can substantially improve school management and performance.

Shared Leadership exhibits a high positive correlation with Efficiency ($r = 0.894$, $p < 0.001$), Productivity ($r = 0.924$, $p < 0.001$), and Effectiveness ($r = 0.948$, $p < 0.001$). This suggests that when leadership responsibilities are shared among school leaders and teachers, overall school performance improves. This finding aligns with Harris & Spillane (2019), who argued that shared leadership fosters collective decision-making, enhancing school operational efficiency and teacher effectiveness.

Collaboration also shows a strong positive correlation with Efficiency ($r = 0.940$, $p < 0.001$), Productivity ($r = 0.919$, $p < 0.001$), and Effectiveness ($r = 0.943$, $p < 0.001$). This indicates that a collaborative work environment significantly enhances school leaders' ability to manage resources, execute tasks efficiently, and improve school performance. These findings are supported by Leithwood et al. (2021), who found that collaboration among educators leads to improved instructional quality and student outcomes.

Student Learning Focus is also significantly correlated with Efficiency ($r = 0.852$, $p < 0.001$),

Productivity (r = 0.919, p < 0.001), and Effectiveness (r = 0.916, p < 0.001). This highlights the importance of prioritizing student learning in leadership decisions to enhance school effectiveness. Hallinger & Heck (2018) emphasized that student-centered leadership improves academic outcomes and teacher performance, reinforcing these results.

The results suggest that school leadership strategies focusing on shared leadership, collaboration, and student learning can significantly enhance efficiency, productivity, and effectiveness in school management. These findings emphasize the need for teamwork, shared decision-making, and student-centered leadership approaches to optimize school leadership performance.

Table 15 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.783a	0.613	0.594	0.31248

a. Predictors: (Constant), Shared Leadership, Student Learning Focus, Collaboration

Source: Primary data, 2025

The model summary indicates a strong relationship between the independent variables (Student Learning Focus, Collaboration, and Shared Leadership) and the dependent variable. The R-value of 0.783 reflects a substantial positive correlation, suggesting these predictors meaningfully influence the outcome. The R Square value of 0.613 shows that 61.3% of the variation in the dependent variable is explained by the model, which is within a typical range for social science research where human behavior and institutional factors contribute to variability. The Adjusted R Square of 0.594 accounts for the number of predictors and sample size, indicating that the model remains robust when generalized beyond the sample.

The standard error of estimate (0.31248) is moderate, suggesting that the model's predictions reasonably approximate the actual observations, though with some expected variability typical in educational research contexts.

These results align with previous studies (e.g., Johnson & Lee, 2019; Smith et al., 2021), which emphasize that collaboration, shared leadership, and a strong focus on student learning play significant roles in improving school leadership effectiveness, teacher performance, and overall school outcomes. The findings reinforce the importance of fostering a culture of shared leadership and collaboration within schools to enhance efficiency, productivity, and student-centered learning.

Table 16 Analysis of Variance (ANOVA[a])

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	17.317	3	5.772	452.381	.000**
Residual	0.713	54	0.013		
Total	18.03	57			

a. Dependent Variable: School Leaders' Job Performance

b. Predictors: (Constant), Student Learning Focus, Collaboration, Shared Leadership

Source: Primary data, 2025

The ANOVA test confirms that the regression model significantly predicts school leaders' job performance (F = 452.381, p = 0.000), meaning that Student Learning Focus, Collaboration, and Shared Leadership collectively explain a substantial portion of the variance in job performance. The low residual variance (0.713) suggests that most of the variation in the dependent variable is accounted for by the predictors.

This result aligns with studies like Hallinger & Heck (2018) and Leithwood et al. (2021), which highlight that collaborative leadership and a strong focus on student learning are crucial drivers of effective school leadership. These findings emphasize the need for shared leadership structures and professional collaboration to enhance productivity, efficiency, and effectiveness in school management.

Table 17 Regression Coefficients

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	0.045	0.112		0.402	0.689
Shared Leadership	0.245	0.072	0.256	3.403	0.001
Collaboration	0.472	0.069	0.478	6.841	0.000
Student Learning Focus	0.352	0.049	0.36	7.184	0.000
a. Dependent Variable: School Leaders' Job Performance					

Source: Primary data, 2025

The multiple regression analysis demonstrates that Shared Leadership, Collaboration, and Student Learning Focus significantly contribute to School Leaders' Job Performance. The positive and statistically significant coefficients indicate that enhancing these predictors leads to improved job performance among school leaders.

Collaboration emerged as the strongest predictor (β = 0.478, p < 0.001), highlighting the crucial role of teamwork and cooperative efforts in enhancing leadership effectiveness. This finding aligns with studies by Hallinger & Heck (2018), which emphasized that collaborative leadership fosters a culture of shared responsibility and improves school outcomes.

Student Learning Focus (β = 0.360, p < 0.001) also demonstrated a significant contribution, reinforcing the idea that prioritizing student learning outcomes leads to better school leadership performance. This result supports the findings of Leithwood et al. (2021), who argued that student-centered leadership improves decision-making and school management effectiveness.

Shared Leadership (β = 0.256, p = 0.001) showed a meaningful impact, indicating that when leadership responsibilities are distributed among school leaders and teachers, overall job performance improves. This aligns with Harris & Jones (2018), who found that shared leadership practices enhance decision-making, innovation, and job satisfaction among school leaders.

These findings suggest that fostering a collaborative work environment, maintaining a strong focus on student learning, and implementing shared leadership practices are effective strategies for improving school leadership performance.

5. Conclusion & Recommendations

5.1 Conclusions

This study concludes that Professional Learning Communities (PLCs) are instrumental in enhancing teaching effectiveness, improving student outcomes, and fostering continuous professional development among teachers. Teachers engaged in PLCs report better instructional practices, improved time management, and a greater capacity to meet diverse student learning needs. These outcomes align with collaborative and constructivist learning theories that emphasize shared knowledge-building and reflective practice.

Beyond classroom-level improvements, PLCs contribute to whole-school development by strengthening collaboration among educators and promoting aligned instructional goals. However, the study identifies a limited impact of PLCs on fostering teaching innovation. This limitation appears to stem from inconsistent teacher engagement, insufficient institutional support, and a lack of targeted professional development focused explicitly on innovative pedagogies. For instance, some teachers expressed challenges in applying new, creative strategies due to time constraints and limited access to resources, indicating that innovation through PLCs is often underutilized or stifled.

Given these findings, it is important to interpret the results with caution. The study relies on self-reported data, which may introduce bias, and the sample is geographically and institutionally specific, limiting the generalizability of the results.

Looking forward, the evolving educational landscape—with increasing demands for digital integration, differentiated instruction, and inclusive pedagogy—calls for further research to explore how PLCs can better support innovation and adaptability. Future studies should investigate mechanisms for enhancing teacher engagement in PLCs and how institutional frameworks can be optimized to sustain innovative teaching practices over time.

5.2 Recommendations

Based on the findings of the study, the following recommendations are made:

1. **School leadership** should allocate specific, protected time during the school week for PLC engagement. Structured support through mentoring, collaboration tools, and clear agendas is essential to maximize the effectiveness of PLC sessions without overburdening teachers. This is a low-cost intervention with high impact potential.

2. **District education officers** should implement focused Continuous Professional Development (CPD) programs on innovative teaching methods and data use, scheduled at least twice per term. These programs should be designed to be accessible, practical, and relevant to local contexts, encouraging teachers to apply new strategies effectively.

3. **Head teachers** should ensure consistent provision of resources necessary for PLC activities—such as meeting spaces, internet access, and materials—and formally integrate PLC objectives into school improvement plans. While this may require modest budget adjustments, it fosters long-term sustainability and institutionalizes PLC practice.

4. **Teachers** should be encouraged and recognized for adopting innovative teaching practices learned through PLCs. Establishing recognition systems or awards can motivate sustained use of best practices, encouraging a culture of continuous improvement.

5. **The Ministry of Education** should develop and implement a PLC monitoring and evaluation framework that includes regular school-level feedback loops (e.g., end-of-term reviews). This system will track progress, identify challenges early, and inform policy adjustments, ensuring PLC initiatives are scaled and sustained effectively across regions.

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