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# Professional Learning Communities as a Strategy for Implementing Tanzania's 2023 Curriculum Reforms

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## Abstract

Effective curriculum reform implementation requires sustained professional learning that enables teachers to translate new curriculum goals into actual classroom settings. This study examined school heads' perceptions of Professional Learning Communities (PLCs) and determined the association between PLC-related professional learning and the implementation of Tanzania's 2023 curriculum reforms. A quantitative approach with an analytical cross-sectional survey design was adopted. Data were collected from 14,648 public and private primary school heads who participated in the national bridging training on the improved curriculum. Descriptive statistics were used to examine perceptions and curriculum implementation practices, while Pearson correlation and simple linear regression were used to determine the association between PLC-related professional learning and curriculum implementation. The findings showed that 92.6% of school heads perceived PLCs as highly or very highly effective, with an overall mean of 3.28 (SD = 0.59). School heads also reported high curriculum implementation practices (M = 3.84, SD = 0.28). PLC-related professional learning was positively but weakly associated with curriculum implementation ( $r = .158$ ,  $p < .001$ ). Regression analysis further showed a significant positive association ( $B = .079$ ,  $p < .001$ ), although PLC engagement explained only 2.5% of the variance in curriculum implementation ( $R^2 = .025$ ). The study concludes that PLCs constitute a valuable but insufficient mechanism for curriculum implementation. Strengthening leadership support for PLCs, their instructional focus, and the quality of professional collaboration is therefore recommended to enhance their contribution to implementing competency-based curriculum reforms.

**Keywords:** *Competency-based curriculum, curriculum implementation, professional learning communities, school heads, teacher professional development*

## 1.0 Introduction

Curriculum reform has increasingly shifted from prescribing what teachers should teach to transforming how teachers interpret curriculum expectations, organise curriculum experiences and support learners to develop transferable skills. This shift has made continuous teacher professional development increasingly important because curriculum documents alone do not guarantee corresponding changes in classroom practice (Coles et al., 2023; Christopher and Jones, 2025). In

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this context, Professional Learning Communities (PLCs) have become a prominent school-based strategy through which teachers share and discuss teaching strategies and professional knowledge, review learners' needs, and identify solutions to teaching and learning challenges (Admiraal et al., 2021; Denée, 2024). Recent scholarship thus positions PLCs not simply as opportunities for teachers to meet, but as potentially sustained structures for professional learning and instructional improvement (McPherson & Asghar, 2025; Grimm, 2024). However, their contribution cannot be inferred from their mere existence because the quality of collaboration, leadership support, trust, professional agency and sustained engagement determine whether such communities generate meaningful changes in practice (Brodie, 2021; McPherson & Asghar, 2025). This distinction is particularly critical in the process of curriculum reform. New competency-based curricula commonly require teachers to move beyond transmission-oriented teaching towards learner-centred pedagogies, formative assessment, problem solving, collaboration and the application of knowledge in authentic contexts (Christopher and Jones, 2025). Rather than relying on one-off orientation workshops, such a shift requires ongoing interpretation and adaptation, making schools important sites of professional learning (Coles et al., 2023; Denée, 2024).

PLCs potentially address this need by creating opportunities for teachers to share expectations, reflect on experiences, collaborate to resolve teaching dilemmas, and learn from each other (Woodland et al., 2024; Grimm, 2024). However, empirical research cautions against equating collaboration automatically with instructional improvement. For instance, McPherson and Asghar (2025) indicate that teachers may experience PLC participation as an externally imposed requirement, while Brodie (2021) indicates that teachers may actively participate in, withdraw from, or reject PLC activities depending on leadership, trust, and context. Thus, the central issue is not only whether PLCs exist, but whether school-level leadership and professional conditions allow PLCs to function as a mechanism for implementing curriculum change.

This leadership dimension is particularly important because school leaders occupy an intermediary position between reform policy and classroom practice. Although teachers ultimately implement curriculum requirements, school leaders influence the professional conditions by creating collaborative structures, allocating time, supporting professional dialogue and sustaining attention on instructional improvement (Grimm, 2024). Studies of PLCs therefore increasingly recognise leadership support as a condition for sustaining collaborative professional learning rather than treating PLCs as self-organising teacher groups (Brodie, 2021; Grimm, 2024). However, evidence suggests that leadership alone does not guarantee productive PLCs; collaborative activities can become procedural meetings or reproduce established teaching routines when professional dialogue is insufficiently focused on improving learning (McPherson & Asghar, 2025). This tension raises an important implementation question: how school heads understand PLCs may influence the extent to which they mobilise them as mechanisms for curriculum implementation.

The question is particularly significant in the context of Africa, where education systems have increasingly adopted competency-based curriculum reforms. Across South and Eastern Africa, competency-based curricula have sought to replace predominantly content-oriented instruction with pedagogies that develop learners' abilities to apply knowledge and skills, yet implementation continues to be mediated by teacher capacity, school conditions and the professional support available to teachers (Christopher and Jones, 2025). Evidence from Rwanda illustrates both the possibilities and limitations of collaborative professional development. Nsengimana et al. (2020)

found that PLCs were part of a strategy for professional development and strengthening school leadership aimed at enabling local education leaders to support head teachers. However, the study also revealed that persistent challenges remain in developing leadership capacity to support these communities (Nsengimana et al., 2020). The Rwandan experience indicates that PLCs can link policy reform with classroom implementation, but their success and effectiveness depend substantially on the capacity of education and school leaders to facilitate meaningful professional relationships.

Evidence from other African contexts also questions whether establishing collaborative groups necessarily leads to professional learning. Brodie (2021) found that the interaction of professional agency and conditions such as focus, long-term inquiry, collaboration, trust and leadership support influenced teachers' participation in PLCs in South Africa. This implies that PLCs are not merely formal structures but also social and organisational processes. The implication for competency-based reform is particularly important; teachers need spaces to collectively interpret the new expectations of pedagogical practices, but these spaces must foster exploration of practice rather than reinforce existing routines (Brodie, 2021). Compared with the Rwandan evidence, which highlights capacity development among education leaders (Nsengimana et al., 2020), the South African evidence is more concerned with teachers' agency and the quality of teachers' collaboration within their own system (Brodie, 2021). Taken together, these studies suggest that leadership and teacher engagement are interdependent conditions for successful PLCs, although the relationship between these conditions during large-scale curriculum reform remains context-dependent.

In Tanzania, this issue has acquired renewed significance following the review of the Education and Training Policy 2014, 2023 Edition (Ministry of Education, Science and Technology-MoEST, 2023) and the introduction of the improved curricula in 2023. The reforms place greater emphasis on competency development and aligning education with social, economic, and technological needs, requiring teachers to continually improve their pedagogical knowledge and practices (MoEST, 2023). Government implementation efforts have accordingly included in-service teacher training as part of the wider educational reform agenda (MoEST, 2024). However, initial training on the introduction of the new curriculum cannot address all challenges that arise once teachers begin implementing it in the classroom. Sustainable curriculum implementation therefore requires professional support mechanisms that remain available within schools after centrally organised orientation and training activities have ended.

Importantly, a policy foundation for continuous professional learning has been established in Tanzania through the National Framework for Teachers' Continuous Professional Development (NF-TCPD) (MoEST, 2020). TCPD is defined in the framework as a process of continuous enhancement of teachers' professional knowledge, skills and practices, and it is envisaged that professional development occurs at all levels within the school, the ward, the cluster and beyond (MoEST, 2020). More directly relevant to PLCs, the framework advocates a culture of collaboration-centred teaching and learning, self-learning and mentorship. It also envisages TCPD as enabling teachers to practise competency-based teaching (MoEST, 2020).

The NF-TCPD also gives school leadership a particularly important role in operationalising collaborative professional learning (MoEST, 2020). It identifies school leaders and administrators as critical to school improvement and specifies their responsibilities in planning, coordinating, monitoring and supervising TCPD, forming collaborative teams and providing opportunities for



teachers to share successful and unsuccessful teaching experiences (MoEST, 2020). This policy expectation aligns closely with the evidence internationally, which recommends that leadership support, organisational conditions and continuous professional dialogue affect the effectiveness of PLCs (Brodie, 2021; Grimm, 2024). The framework therefore creates a clear link between school leadership, PLCs and curriculum implementation: teachers are expected to develop their skills continually through collaborative learning in the school environment, while the school head plays a key role in creating and sustaining the organisational context in which such learning takes place (MoEST, 2020).

However, the existence of this supportive policy framework alone does not necessarily mean that PLCs function as intended in Tanzanian schools. Previous research on teachers' professional development in Tanzania identified fragmented provision, limited stakeholder understanding and a historical reliance on conventional, externally organised professional development approaches (Komba & Mwakabenga, 2019). Although the NF-TCPD subsequently provided a more coordinated national framework (MoEST, 2020), recent empirical evidence indicates that the potential of PLCs for competency-based teaching has not been fully realised. Mwakabenga and Paine (2024), for example, found that PLCs in Tanzanian secondary schools provided opportunities for professional interaction but had not reached their full potential for promoting competence-based teaching; in some instances, collaborative practices reinforced examination-oriented teaching and memorisation rather than active learning. This finding is particularly important for the 2023 reforms because it demonstrates that the presence of collaborative structures does not necessarily produce the pedagogical transformation anticipated by competency-based curricula.

Meanwhile, evidence from Tanzania remains too limited to draw firm conclusions about PLCs as a national curriculum-implementation strategy. The qualitative case study by Mwakabenga and Paine (2024) provides valuable contextual insight from teachers, school heads and students, but its case-based design and focus on competence-based teaching preceded the present phase of implementing the 2023 curriculum in a wider school setting. More recent synthesis also supports the potential of PLCs to improve teachers' professional development, but the effectiveness of PLCs requires supportive leadership, trust, shared purpose, ongoing collaboration and enabling institutional conditions (Lemesaya, 2026). Thus, a notable tension exists between Tanzania's strong policy expectation for continuous, collaborative and school-based professional learning (MoEST, 2020, 2023) and the still-limited empirical understanding of how such collaboration is functioning as schools implement the 2023 reforms.

This gap is significant because the success of Tanzania's curriculum reforms depends not only on the formal design of the curriculum or initial teacher orientation, but also on the capacity of schools to sustain professional learning as implementation challenges emerge. Existing evidence has provided important insights into teacher professional development and the potential of PLCs for competence-based teaching (Komba & Mwakabenga, 2019; Mwakabenga & Paine, 2024), but considerably less is known about school heads' perceptions of PLCs under the current reforms and whether engagement in PLC-related professional learning is associated with stronger reported curriculum implementation practices. Addressing this gap is necessary because school heads are explicitly positioned within Tanzania's TCPD framework as coordinators, organisers, and supporters of collaborative professional learning (MoEST, 2020), while international and African evidence indicates that leadership can either enable or constrain the effectiveness of PLCs (Brodie,

2021; Nsengimana et al., 2020; Grimm, 2024). Accordingly, this study examines Professional Learning Communities within the implementation of Tanzania's 2023 curriculum reforms. Specifically, it addresses two questions: (i) What are school heads' perceptions of Professional Learning Communities? and (ii) What is the association between Professional Learning Communities and school heads' reported curriculum implementation practices?

## **2.0 Theoretical Framework**

This study employed Bandura's Social Learning Theory (1977), which posits that learning occurs through social interaction, modelling, observation, feedback, and reciprocal interaction between individuals and their environments. The theory assumes that individuals can develop knowledge and skills not only through direct instruction but also by observing what others are doing, exchanging experiences and reflecting on the consequences of particular practices (Bandura, 1977). This proposition closely aligns with PLCs, where teachers learn collaboratively by sharing experiences, observing and discussing practices, solving instructional challenges and developing common approaches to teaching (Vescio et al., 2008; Admiraal et al., 2021).

The theory was selected because Tanzania's PLC approach conceptualises professional development as continuous and collaborative rather than exclusively dependent on externally delivered training (MoEST, 2020). Compared with Organisational Readiness for Change Theory, which primarily explains organisational members' commitment and efficacy for implementing change (Weiner, 2009), Social Learning Theory provides a more direct explanation of the learning mechanism examined in this study: professional interaction through PLCs may be associated with how school heads and teachers translate curriculum expectations into practice. Nevertheless, the theory does not imply that participation automatically produces change; learning also relies on interaction, modelling and the conditions supporting the learning process, an argument consistent with evidence that the quality of PLC engagement matters more than their mere existence (Brodie, 2021; de Jong et al., 2024). The theory therefore provides an appropriate lens for examining both school heads' perceptions of PLCs and the relationship between PLC-related professional learning and curriculum implementation practices.

## **2.1 Empirical Literature Review**

### **School Heads' Perceptions of Professional Learning Communities**

Empirical research generally indicates that school leaders' perceptions of PLCs matter because leaders shape the organisational conditions under which teacher collaboration takes place (Qian & Walker, 2021; To et al., 2023). In China, Qian and Walker (2021) reported that principals contributed to PLC development by creating structural and cultural conditions that facilitated teacher collaboration, whereas To et al. (2023), using multilevel structural equation modelling in Hong Kong kindergartens, found that principal leadership practices were linked to PLCs and teacher commitment. Although both studies position leadership as a significant condition for collaborative professional learning, they approach the issue differently: Qian and Walker (2021) focus on how principals create an enabling environment, while To et al. (2023) provide quantitative evidence of relationships among leadership, PLCs, and teacher commitment. Together, the evidence suggests that school leaders' understanding of PLCs is important because their leadership practices can influence whether PLCs become professionally meaningful structures rather than merely scheduled teacher meetings (Qian & Walker, 2021; To et al., 2023).

Nevertheless, positive leadership towards PLCs does not necessarily produce meaningful professional learning. McPherson and Asghar (2025) reported that teachers could initially experience PLC participation as a requirement before gradually acknowledging its collaborative professional value, while Brodie (2021) found that teachers could engage with, withdraw from or resist PLC activities depending on professional agency, trust, leadership and the conditions surrounding participation. This evidence challenges an administrative understanding of PLCs in which establishing groups and requiring attendance are assumed to generate meaningful professional learning (Brodie, 2021; McPherson & Asghar, 2025). Similarly, Vangrieken et al.'s (2017) systematic review reported that teacher collaboration develops different outcomes depending on group processes, organisational environments and the quality of interaction. Thus, the literature differentiates between the formal presence of a PLC and the professional quality of learning within it, implying that school heads' understanding may be significant because leaders who conceptualise PLCs primarily as administrative structures may support them differently from those who view them as spaces for reflection, inquiry, and improvement (Vangrieken et al., 2017; Qian & Walker, 2021).

Current empirical findings reinforce this distinction by connecting effective PLC leadership with instructional purpose. Grimm (2024) noted that teacher leadership within PLCs can improve teaching when professional learning is linked to collective responsibility and instructional development. Likewise, de Jong et al. (2024) showed that collaborative knowledge development relies on the nature of teachers' interactions rather than collaboration in itself. This evidence extends earlier PLC research that acknowledged shared values, reflective dialogue and collective responsibility as significant conditions of professional communities (Stoll et al., 2006; Vescio et al., 2008). However, while earlier literature largely established the conditions associated with effective PLCs, more recent research places greater emphasis on how collaboration is established and led (Grimm, 2024; de Jong et al., 2024). This shift is important because it suggests that understanding school heads' perceptions requires attention not merely to whether they value PLCs, but also to what purposes they believe PLCs should serve.

African research indicates that these perceptions and practices are sensitive to institutional context. In South Africa, Brodie (2021) reported that teacher agency within PLCs interacted with trust, sustained inquiry, leadership, and professional relationships, indicating that collaborative learning cannot be prescribed administratively. In Rwanda, Nsengimana et al. (2020), by comparison, emphasised developing the capacity of education leaders to support and sustain PLCs during curriculum reform. Whereas Brodie (2021) foregrounds teachers' agency within professional communities, Nsengimana et al. (2020) emphasise leadership capacity for sustaining them. The evidence is therefore complementary rather than contradictory: one indicates that teachers need professional agency for PLCs to work, while the other shows that such agency requires a favourable leadership environment (Brodie, 2021; Nsengimana et al., 2020). However, because both studies took place within educational contexts with organisational and reform conditions that vary from Tanzania, their findings cannot establish how Tanzanian school heads currently understand PLCs within the country's TCPD and curriculum-reform environment.

Evidence from Tanzania provides an important but still incomplete picture. Mwakabenga and Paine (2024) reported that PLCs in Tanzanian secondary schools provided opportunities for professional interaction, but their potential to support competence-based teaching was not fully

realised; notably, some collaborative practices continued to reinforce examination-oriented teaching and memorisation rather than competence-oriented pedagogy. This evidence challenges the assumption that collaborative professional learning is inherently reform-oriented and suggests that PLCs can reproduce existing practices when their professional purpose is insufficiently aligned with curriculum goals (Mwakabenga & Paine, 2024). Their qualitative case-study design is valuable for revealing how PLC practices are experienced by school heads, teachers, and students, but its context-specific design limits broader conclusions about school heads' perceptions across various schools. Moreover, the study focused primarily on PLCs in relation to competence-based teaching rather than specifically examining how school heads perceive PLCs within the implementation of the 2023 curriculum reforms (Mwakabenga & Paine, 2024).

This limitation is important because Tanzania's NF-TCPD positions school leaders as organisers and supporters of PLCs (MoEST, 2020). Evidence from the implementation of Tanzania's TCPD system further shows that professional development has increasingly shifted towards school-embedded approaches, with Communities of Learning (CoL) providing an important mechanism for regular teacher collaboration (Chachage & Thakrar, 2023; Todd et al., 2025). However, the existence and frequency of CoLs do not establish how school heads perceive their professional purpose, particularly because international and Tanzanian studies indicate that participation can coexist with procedural or weakly instructional collaboration (Vangrieken et al., 2017; Mwakabenga & Paine, 2024). Consequently, there remains insufficient empirical evidence on whether Tanzanian school heads perceive PLCs principally as administrative TCPD requirements, mechanisms for teacher collaboration, or strategic structures for supporting curriculum implementation. The present study addresses this gap by examining school heads' perceptions of PLCs within the context of Tanzania's 2023 curriculum reforms.

### **Professional Learning Communities and Curriculum Implementation Practices**

The potential contribution of PLCs to curriculum implementation is supported by substantial evidence linking collaborative professional learning with teacher learning and changes in instructional practice, although the strength of this relationship varies across studies (Vescio et al., 2008; Doğan & Adams, 2018; de Jong et al., 2024). Vescio et al. (2008) concluded that well-established PLCs can promote teaching practice and student learning, while Doğan and Adams (2018), reviewing subsequent evidence, identified generally positive effects but raised concerns about weaknesses in research designs used to attribute outcomes directly to PLC participation. This methodological qualification is significant: many of the studies establish relationships between PLC participation, instructional improvement, and professional learning but provide weaker evidence that PLCs independently cause curriculum change (Doğan & Adams, 2018). Therefore, PLCs are better understood as a strategy through which teachers interpret and respond to educational reform demands than as interventions that automatically produce successful implementation (Opfer & Pedder, 2011; Vangrieken et al., 2017).

The type of collaboration appears to explain part of these differences. Admiraal et al. (2021) reported that schools functioning as CoL provided conditions for sustained teacher professional development, while de Jong et al. (2024) indicated that teachers' learning improvements are linked with patterns of collaborative knowledge building. Similarly, Woodland et al. (2024) found that structured protocols can influence the professional value teachers derive from collaborative learning. However, McPherson and Asghar (2025) show that engagement may initially be



understood as externally imposed, showing that collaboration organised through compliance may not immediately develop professional ownership. Taken together, this evidence suggests that the contribution of PLCs depends less on how often teachers meet than on what they do when they meet, including whether they examine instructional challenges, reflect critically, exchange knowledge, and develop solutions that can be applied in practice (Vangrieken et al., 2017; de Jong et al., 2024).

Leadership represents a second mechanism through which PLCs may lead to implementation. Whitworth and Chiu (2015) argued that school leadership provides an important link between professional development and teacher improvement because leaders create environments for new professional learning to be supported after formal training. Empirical evidence from To et al. (2023) similarly showed relationships among principal leadership, PLCs and teacher commitment, while Qian and Walker (2021) indicate that principals promote the organisational conditions necessary for PLC development. This evidence is consistent with the benchmark study, which indicated that school-level enactment is mediated through supportive structures, leadership, and professional routines rather than policy design alone. Thus, PLCs are unlikely to be implemented equally across schools because the same professional-development structure can be supported strategically in one school but implemented procedurally in another (Qian & Walker, 2021; To et al., 2023).

This argument is particularly relevant to CBC reforms, which require teachers to reinterpret established pedagogical practices rather than simply acquire additional curriculum information (Christopher and Jones, 2025). Across South and Eastern Africa, Christopher and Jones (2025) noted that CBC implementation continues to be affected by professional support, teacher capacity, and contextual conditions. Evidence from Rwanda illustrates this point: Nsengimana et al. (2020) found that PLCs formed part of initiatives to develop education leadership capacity and sustain professional learning during reform implementation. Nevertheless, the continuing challenges in developing leadership capacity reported in the Rwandan context demonstrate that PLC structures alone cannot overcome broader implementation constraints (Nsengimana et al., 2020). Thus, compared with international studies that predominantly associate PLCs with professional and instructional improvement, African evidence places greater emphasis on whether school systems possess the leadership and institutional capacity required to translate collaboration into reform-oriented practice (Nsengimana et al., 2020; Christopher and Jones, 2025).

Tanzanian evidence illustrates this tension particularly clearly. Mwakabenga and Paine (2024) found that although PLCs provided opportunities for collaborative professional learning, they did not consistently promote competence-based teaching because some collaborative activities reproduced examination-oriented and memorisation practices. In contrast, recent evidence on Tanzania's TCPD implementation indicates a considerable expansion of school-based professional learning and Communities of Learning as mechanisms for regular professional development (Chachage & Thakrar, 2023; Todd et al., 2025). These findings are not necessarily contradictory: the latter demonstrates the expansion of structures and opportunities for participation, whereas Mwakabenga and Paine (2024) question the instructional quality and consequences of that participation. The distinction is crucial because implementation coverage does not demonstrate implementation effectiveness; teachers may participate regularly in collaborative learning without

necessarily using that collaboration to change curriculum practice (Mwakabenga & Paine, 2024; Todd et al., 2025).

Evidence from Mapunda (2026) reinforces this distinction. The TCPD survey of 725 respondents from six Tanzanian regions found that 91.9% participated in TCPD weekly and Communities of Learning were the most common modality, reported by 70.1% of respondents (Mapunda, 2026). However, the same study demonstrates why participation should not be interpreted automatically as professional impact: strategic PLC leadership, developmental support and accountability were positively related to autonomous motivation, whereas passive leadership was strongly associated with amotivation. More importantly, overall professional learning culture significantly predicted autonomous motivation ( $B = 0.700$ ,  $p < .001$ ) and negatively predicted amotivation ( $B = -0.753$ ,  $p < .001$ ). These findings provide quantitative support for the argument that the contribution of collaborative professional learning depends on the organisational and leadership conditions surrounding participation rather than participation alone.

Nevertheless, the evidence from Mapunda (2026) does not resolve the specific question addressed by the present study. Its outcomes concern professional learning culture and teachers' motivation within TCPD rather than whether PLCs contribute directly to implementation of Tanzania's 2023 curriculum reforms. The study itself acknowledges that its cross-sectional survey identifies associations rather than causal relationships and contains no direct measures of instructional practice or student outcomes. Similarly, Mwakabenga and Paine (2024) provide richer evidence about competence-based teaching, but their case-study evidence does not establish the contribution of PLCs across the broader context of the current reforms. Consequently, an empirical gap remains between evidence that PLCs and Communities of Learning are increasingly embedded within Tanzania's TCPD system and evidence establishing whether participation in such professional learning is associated with stronger curriculum implementation practices. Existing Tanzanian studies provide important insights into PLC participation and competence-based teaching, but limited large-scale quantitative evidence exists on the relationship between PLC-related professional learning and school heads' reported implementation of the 2023 curriculum. The present study addresses this gap by examining this association using national survey data.

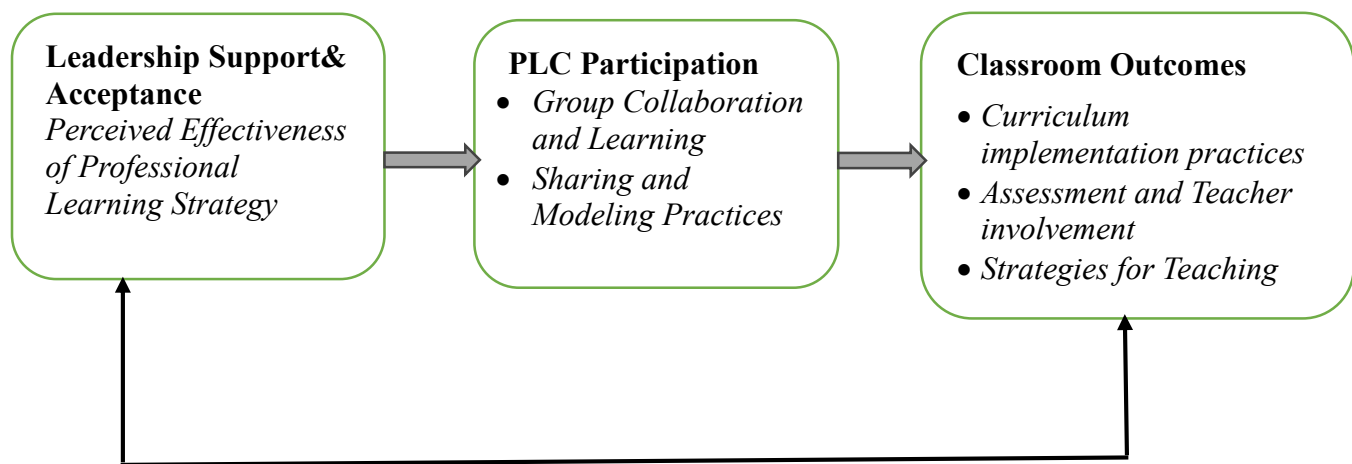
The present study addresses this gap by examining the role of PLCs in implementing Tanzania's 2023 curriculum reforms. This focus extends beyond documenting the frequency or presence of collaborative learning and its general professional benefits, to consider how PLCs support the translation of curriculum expectations into school practice. It is important because the Education and Training Policy 2014, 2023 Edition places additional demands on schools and teachers to implement competency-based educational change, and the NF-TCPD positions professional learning as a key area of the education sector through a collaborative, continuous, and school-based approach. The study therefore examines whether the collaborative professional-learning structures that were established in Tanzania are being used as a mechanism for implementing the curriculum or merely as structures for participation.

## **2.2 Conceptual Framework**

Drawing on Social Learning Theory and the reviewed empirical literature, the study conceptualises PLCs as a collaborative professional-learning mechanism through which curriculum knowledge and practices may be shared, modelled, discussed and reinforced. School heads' perceptions indicate their acceptance of PLCs as a viable professional-learning strategy, while actual

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participation in school-based PLCs represents exposure to collaborative professional learning. Such engagement is expected to be positively associated with reported curriculum implementation practices, including assessment understanding, evaluation of curriculum implementation, teacher involvement in monitoring and evaluation, and strategies for translating curriculum objectives into classroom practice.



**Figure 1: Conceptual Framework**

### 3.0 Research Methodology

#### Research Design

The study employed an analytical cross-sectional survey design using a quantitative approach. The design was appropriate because data were collected from school heads across Tanzania at a single point in time and allowed both a description of their perceptions of Professional Learning Communities (PLCs) and an examination of the relationship between PLC-related professional learning and curriculum implementation. The design was suitable for examining patterns and associations among variables without manipulating the study environment (Creswell & Creswell, 2023). Accordingly, the design addressed the first objective by describing school heads' perceptions of PLCs and the second by statistically examining whether engagement in school-based professional learning was associated with curriculum-implementation practices. Because the data were cross-sectional, the observed relationships were interpreted as associations rather than causal effects.

#### Target Population

The target population comprised public and private primary school heads who participated in the national bridging training on the implementation of Tanzania's 2023 improved curriculum. This population was appropriate because school heads are responsible for coordinating curriculum implementation and facilitating teachers' continuous professional learning at the school level.

### **Sampling Technique and Sample size**

The study used a census approach to the available valid responses rather than drawing a sample from the database. All complete responses from school heads who participated in the national bridging training and completed the questionnaire were included in the study. Therefore, a total of 14,648 school heads constituted the study sample. This approach maximised use of the available national data and reduced sampling error within the surveyed population. However, generalisation was limited to school heads represented in the national bridging-training database rather than assuming that the respondents constituted a probability sample of every school head in Tanzania.

### **Data Collection Method and Instrument**

Data were collected through a structured electronic questionnaire administered online during the national bridging training on implementation of the 2023 curriculum. The questionnaire captured demographic and professional characteristics, school heads' perceptions of PLCs, frequency of school-based PLC activities, and curriculum-implementation practices. In particular, respondents indicated the extent to which they perceived bridging training as being effectively implemented through PLCs and the extent to which PLC activities were conducted in their schools to strengthen teachers' capacity to implement the CBC. Curriculum implementation was reflected through items addressing understanding of assessment and evaluation, evaluation of curriculum implementation, teacher involvement in monitoring and evaluation, and strategies for ensuring that curriculum objectives were translated into classroom teaching and learning.

### **Measurement of the Main Variables**

For the first objective, school heads' perceptions of PLCs were measured using the questionnaire item assessing the extent to which respondents agreed that bridging training on the 2023 curriculum could be effectively undertaken through PLCs. For the second objective, PLC-related professional learning was represented by the reported extent to which PLC activities were conducted at school to develop teachers' capacity for implementing the improved curriculum. Curriculum implementation was assessed using the relevant closed-ended implementation indicators contained in the dataset. Higher scores represented stronger perceptions or reported implementation practices. This operationalisation restricted the analysis to variables available in the dataset rather than introducing measures that were not collected.

### **Validity and Reliability**

The questionnaire was developed by curriculum developers from the Tanzania Institute of Education in relation to the national bridging-training programme and requirements of the 2023 curriculum. The instrument underwent expert review to ensure that the questionnaire items aligned with curriculum-implementation dimensions. Before inferential analysis, the internal consistency of any multi-item curriculum-implementation composite used in the present study was assessed using Cronbach's alpha, with a coefficient of .70 or above considered acceptable (Taber, 2018).

### **Data Analysis**

Quantitative data were analysed using IBM SPSS Statistics Version 29. For the first objective, frequencies, percentages, means and standard deviations were used to describe school heads' perceptions of PLCs. For the second objective, a curriculum-implementation composite was constructed from conceptually relevant implementation items after confirming acceptable internal



consistency. Pearson correlation analysis was used to establish the direction and strength of the relationship between PLC-related professional learning and curriculum implementation, followed by simple linear regression to determine whether PLC-related professional learning significantly predicted curriculum implementation. Statistical significance was determined at  $p < .05$ , while effect sizes and explained variance ( $R^2$ ) were also reported to establish the practical importance of the relationships.

### Ethical Considerations

The study used data generated through the national school heads' bridging-training programme organised by the Tanzania Institute of Education. Participation in the questionnaire was voluntary, respondents were informed of the purpose of data collection, and personally identifiable information was excluded from the analytical dataset. Data were handled confidentially, managed securely and reported in aggregate form. The study therefore observed the principles of voluntary participation, confidentiality, anonymity and responsible use of research data, consistent with the procedures reported for the original national dataset.

## 4.0 Findings and Discussion

### School Heads' Perceptions of Professional Learning Communities

The first objective examined school heads' perceptions of PLCs to establish the extent to which school heads perceived PLCs as an effective means of conducting bridging training on the 2023 curriculum reforms. Responses were analysed using frequencies, percentages, means and standard deviations. The four response categories were ordered from the least to the strongest endorsement of PLC.

**Table 1: School Heads' Perceptions of PLC (N = 14,648)**

| Perception of effectiveness of PLCs | n             | %          |
|-------------------------------------|---------------|------------|
| Unable/not supportive               | 5             | <0.1       |
| Moderate                            | 1,078         | 7.4        |
| High                                | 8,418         | 57.5       |
| Very high                           | 5,147         | 35.1       |
| <b>Total</b>                        | <b>14,648</b> | <b>100</b> |
| Mean (SD)                           | 3.28 (0.59)   |            |

The findings indicate strongly favorable perceptions of PLCs among school heads. Overall, 92.6% rated the potential effectiveness of PLCs as either high (57.5%) or very high (35.1%), while only 7.4% rated it as moderate. The overall mean ( $M = 3.28$ ,  $SD = 0.59$ ) similarly shows strong endorsement. Thus, school heads generally perceived PLCs as a viable means for continuing professional learning associated with the implementation of the 2023 curriculum. However, this result indicates perceived effectiveness and should not be taken as evidence that PLCs necessarily improve implementation. This finding is consistent with Qian and Walker (2021), who noted that school heads play a significant role in establishing structural and cultural conditions that support PLCs. Similarly, To et al. (2023) reported that principal leadership practices were positively

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associated with PLC development and teacher commitment. These studies support the present finding by indicating that a positive leadership orientation is important for collaborative professional learning. The finding also concurs with Grimm (2024), who argued that PLCs become more effective when leaders connect collaborative learning with improvements in teaching practice.

In the context of Africa, the finding is also consistent with Nsengimana et al. (2020), who reported that PLCs in Rwanda were used to reinforce professional learning during curriculum reform through the development of school and local education leadership capacity. However, Nsengimana et al. also reported continuing limitations in leaders' capacity to sustain PLCs. This differs slightly from the current study, where school heads demonstrated very strong acceptance of PLCs. The difference may show that positive perceptions do not necessarily mean that school leaders possess equal capacity to facilitate effective PLC activities.

The results should therefore be interpreted cautiously. Mwakabenga and Paine (2024) reported that PLCs in Tanzanian secondary schools provided opportunities for teamwork, but did not often promote competence-based teaching; in some cases, existing examination-oriented and memorisation practices were reinforced. This contrasts with the highly favourable understanding reported in the current study. The difference suggests a possible gap between perceiving PLCs as useful and ensuring that PLC activities actually transform classroom practice. Similarly, Brodie (2021) indicated that PLC effectiveness relies on teacher agency, leadership support, trust, and sustained professional interaction rather than the mere existence of collaborative groups. These findings suggest that Tanzania has a strong foundation of leadership acceptance for PLCs. However, the effectiveness of PLCs will depend on whether school heads translate these positive perceptions into practices involving reflection, collaborative problem-solving, sharing of teaching practices, and continuous support for implementation of the competency-based curriculum.

### **Professional Learning Communities and Curriculum Implementation Practices**

The second objective was to examine the association between PLC-related professional learning and curriculum implementation practices as reported by school heads. The analysis was conducted in three stages. First, four curriculum-implementation indicators were examined descriptively. Second, their internal consistency was tested before constructing a composite implementation score. The four items demonstrated acceptable reliability (Cronbach's  $\alpha = .769$ ), supporting their combination into a curriculum-implementation composite. Third, Pearson correlation and simple linear regression were conducted to determine the direction, strength, and predictive relationship between the extent of school-based PLC-related professional learning and curriculum implementation.

**Table 2: School Heads' Reported Curriculum Implementation Practices**

| Curriculum implementation practice                                                  | N             | Mean        | SD          |
|-------------------------------------------------------------------------------------|---------------|-------------|-------------|
| Understanding important aspects of assessment and evaluation                        | 14,648        | 3.82        | 0.39        |
| Understanding criteria for evaluating curriculum implementation                     | 14,648        | 3.79        | 0.41        |
| Involving teachers in monitoring and evaluation of curriculum implementation        | 14,648        | 3.86        | 0.35        |
| Strategies for ensuring curriculum objectives are implemented in classroom practice | 14,648        | 3.89        | 0.32        |
| <b>Overall curriculum implementation</b>                                            | <b>14,648</b> | <b>3.84</b> | <b>0.28</b> |

The results show generally high reported implementation practices ( $M = 3.84$ ,  $SD = 0.28$ ). School heads reported strong use of strategies to translate curriculum objectives into actual classroom teaching and learning ( $M = 3.89$ ), followed by the involvement of teachers in curriculum monitoring and evaluation ( $M = 3.86$ ). Understanding criteria for evaluating implementation recorded the comparatively lowest mean ( $M = 3.79$ ), although it remained high. Overall, the findings show consistently positive self-reported implementation practices.

To establish whether PLC-related professional learning was associated with curriculum implementation, the extent of school-based PLC activities intended to build teachers' capacity to implement the improved curriculum was correlated with the curriculum-implementation composite, as shown in Table 3.

**Table 3: Relationship between PLC-related Professional Learning and Curriculum Implementation**

| Variables                                                            | N      | r     | p     |
|----------------------------------------------------------------------|--------|-------|-------|
| PLC-related professional learning $\times$ Curriculum implementation | 11,232 | 0.158 | <.001 |

A statistically significant positive association was found between PLC-related professional learning and curriculum implementation ( $r = .158$ ,  $p < .001$ ). This indicates that greater reported participation in school-based professional learning was associated with stronger reported curriculum implementation practices. However, the correlation was weak, indicating a modest association between PLC participation and implementation practices. To determine the magnitude of this association further, a simple linear regression was conducted as presented in Table 4.

**Table 4: Regression of Curriculum Implementation on PLC-related Professional Learning**

| Predictor                         | B     | SE    | t      | p     |
|-----------------------------------|-------|-------|--------|-------|
| Constant                          | 3.529 | 0.018 | 190.88 | <.001 |
| PLC-related professional learning | 0.079 | 0.005 | 16.93  | <.001 |

Model statistics:  $R^2 = .025$ ;  $F(1, 11,230) = 286.49$ ,  $p < .001$ .

The regression model was statistically significant,  $F(1, 11,230) = 286.49$ ,  $p < .001$ , but explained approximately 2.5% of the variance in reported curriculum implementation ( $R^2 = .025$ ). A one-unit increase in PLC-related professional learning was associated with approximately a 0.079-point increase in the curriculum-implementation score ( $B = .079$ ,  $p < .001$ ). Therefore, although PLC-related professional learning was positively associated with implementation, its explanatory power was modest. The result suggests that PLCs may form one component of curriculum implementation support, while much of the variation may be related to other professional, leadership, organisational and contextual conditions not measured by this model. The findings indicated a positive relationship, consistent with Vescio et al. (2008), who noted that well-developed PLCs can improve teachers' practices and enhance student learning. Similarly, Admiraal et al. (2021) reported that schools that work as professional learning communities provide a supportive environment for continuous teacher professional development. De Jong et al. (2024) further indicated that teachers can develop professionally through collaborative learning. These studies therefore support the present finding that stronger PLC participation is connected with improved curriculum implementation practices.

However, the weak magnitude of the relationship contrasts notably with studies that emphasise the advantages of PLCs. Doğan and Adams (2018), for example, reported generally positive outcomes linked with PLCs but warned that much of the existing research could not establish that PLC participation independently leads to instructional improvement. The present findings support this caution because, although the association was statistically significant, PLCs accounted for only 2.5% of the variation in curriculum implementation. Thus, PLCs should not be regarded as the only mechanism for successful curriculum reform. The finding is consistent with Mwakabenga and Paine (2024), who noted that PLCs in Tanzania did not consistently lead to competence-based teaching because some collaborative practices continued to reinforce traditional teaching approaches. Likewise, Brodie (2021) demonstrated that effective professional learning depends on the quality of collaboration, trust, teacher agency, and supportive organisational conditions. These studies help explain why greater PLC participation in the present study was associated with stronger implementation, although the relationship remained weak.

The findings also complement evidence from Tanzania's expanding TCPD system, where Communities of Learning have increasingly been used as a school-based solution for teacher professional development (Chachage & Thakrar, 2023; Todd et al., 2025). However, increased participation does not necessarily guarantee improved curriculum implementation. The current findings suggest that the quality and instructional focus of PLC activities may be more significant than simply increasing their frequency or availability. Overall, the findings indicate that PLCs are

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a useful component of curriculum implementation rather than an independent mechanism. Other factors such as teacher competence, school leadership, professional motivation, resources, and school conditions are likely to account for much of the remaining variation. Therefore, strengthening PLCs should focus not only on motivating teachers to meet regularly, but also on ensuring that their professional discussions directly address competency-based pedagogy, curriculum challenges, assessment practices, and classroom implementation.

## 5.0 Conclusion

The study concludes that PLCs are broadly perceived by school heads as a valuable mechanism for supporting continuous professional learning during implementation of Tanzania's 2023 curriculum reforms. Although greater participation in PLC-related professional learning was significantly associated with stronger curriculum implementation practices, the relationship was weak and explained only a small proportion of the variation in implementation. This indicates that PLCs are a significant supportive mechanism rather than a sufficient factor for successful curriculum implementation. Their contribution is likely to depend on the quality of professional collaboration, instructional leadership, and other school-level conditions that enable teachers to translate collaborative learning into classroom practice.

## 6.0 Recommendations

The study recommends that the Ministry of Education, Science and Technology, the Tanzania Institute of Education and other education authorities at national and local levels should strengthen PLCs as an integral component of curriculum implementation rather than treating them primarily as routine professional-development meetings. School heads should be supported to facilitate PLC activities that focus on competency-based pedagogy, collaborative problem-solving, assessment practices, and emerging curriculum-implementation challenges. Given that PLC participation explained only a small proportion of implementation variation, future studies should examine other leadership, teacher, organisational and school-context factors that may jointly explain successful implementation of the 2023 curriculum.

## REFERENCES

- Admiraal, W., Schenke, W., De Jong, L., Emmelot, Y., & Sligte, H. (2021). Schools as professional learning communities: What can schools do to support professional development of their teachers? *Professional Development in Education*, 47(4), 684–698.
- Bandura, A. (1977). *Social learning theory*. Prentice Hall.
- Brodie, K. (2021). Teacher agency in professional learning communities. *Professional Development in Education*, 47(4), 560–573.
- Chachage, K., & Thakrar, J. (2023). *Teacher continuous professional development in Tanzania: Lessons learnt*. EdTech Hub. <https://doi.org/10.53832/edtechhub.0157>.
- Christopher, M., & Jones, M. (2025). Evaluating contexts for implementing a competency-based curriculum in south and eastern Africa: A meta-narrative review. *The Curriculum Journal*, 36(3), 368–383. <https://doi.org/10.1002/curj.301>



- Coles, A., Rodríguez-Muñiz, L. J., Mok, I. A. C., Ruiz, Á., Karsenty, R., Martignone, F., Osta, I., Ferretti, F., & Nguyen, T. T. A. (2023). Teachers, resources, assessment practices: Role and impact on the curricular implementation process. In Y. Shimizu & R. Vithal (Eds.), *Mathematics curriculum reforms around the world: The 24th ICMI study* (pp. 291–317). Springer. [https://doi.org/10.1007/978-3-031-13548-4\\_18](https://doi.org/10.1007/978-3-031-13548-4_18)
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approach* (6th ed.). SAGE Publications.
- Denee, R. (2024). The network professional learning community approach: An effective model for individual and group learning. *Teacher Development*, 28(3), 330–346.
- de Jong, L., Meirink, J., & Admiraal, W. (2024). Teachers' collaborative knowledge building in professional learning communities: Connecting interaction patterns to learning gains. *European Journal of Psychology of Education*. Advance online publication. <https://doi.org/10.1007/s10212-024-00938-y>
- Doğan, S., & Adams, A. (2018). Effect of professional learning communities on teachers and students: Reporting updated results and raising questions about research design. *School Effectiveness and School Improvement*, 29(4), 634–659. <https://doi.org/10.1080/09243453.2018.1500921>
- Grimm, F. (2024). Teacher leadership for teaching improvement in professional learning communities. *Professional Development in Education*, 50(6), 1135–1147. <https://doi.org/10.1080/19415257.2023.2264286>
- Komba, S. C., & Mwakabenga, R. J. (2019). Teacher professional development in Tanzania: Challenges and opportunities. *IntechOpen*. <https://doi.org/10.5772/intechopen.90564>
- Lemesaya, J. M. (2026). The role of professional learning communities on teacher professional development: A synthesis of qualitative evidence. *International Journal of Educational Administration and Policy Studies*, 18(1), 26–36.
- Mapunda, B. B. (2026). Translating teacher continuous professional development (TCPD) into practice: Primary school-level experiences. *International Journal of Education Foundations*, 3(3), 385–397. <https://doi.org/10.33687/ijef.003.03.0124>
- McPherson, H., & Asghar, A. (2025). Professional learning communities: The journey from 'do we HAVE to go there' to 'teachers getting together and being colleagues. *Professional Development in Education*, 51(5). <https://doi.org/10.1080/19415257.2023.2212682>
- Ministry of Education, Science and Technology. (2020). *National framework for teachers' continuous professional development*. Government of Tanzania.
- Ministry of Education, Science and Technology. (2023). *Education and Training Policy 2014, 2023 Edition*. Government of Tanzania.
- Mwakabenga, R. J., & Paine, L. (2024). The potential of professional learning communities for competence-based teaching in Tanzanian secondary schools. *Papers in Education and Development*, 41(2).

- Nsengimana et al. (2020). Developing the capacity of education local leaders for sustaining professional learning communities in Rwanda. *Social Sciences & Humanities Open*, 2(1), 100092.
- Opfer, V. D., & Pedder, D. (2011). Conceptualizing teacher professional learning. *Review of Educational Research*, 81(3), 376–407. <https://doi.org/10.3102/0034654311413609>
- Qian, H., & Walker, A. (2021). Creating conditions for professional learning communities (PLCs) in schools in China: The role of school principals. *Professional Development in Education*, 47(4), 586–598. <https://doi.org/10.1080/19415257.2020.1770839>
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of Educational Change*, 7(4), 221–258.
- Taber, K. S. (2018). The use of Cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- To, K. H., Yin, H., Tam, W. W. Y., & Keung, C. P. C. (2023). Principal leadership practices, professional learning communities, and teacher commitment in Hong Kong kindergartens: A multilevel SEM analysis. *Educational Management Administration & Leadership*, 51(4), 889–911. <https://doi.org/10.1177/17411432211015227>.
- Todd, G. J. N., Xu, E., Liang, X., Shukia, R., Kanukisya, B., Emanuel, G., Marandu, D., & Marobo, S. (2025). “MEWAKA, kwanza, kwanza, MEWAKA!”: Rollout of the teachers' continuous professional development system in Tanzania. World Bank.
- Vangrieken, K., Meredith, C., Packer, T., & Kyndt, E. (2017). Teacher communities as a context for professional development: A systematic review. *Teaching and Teacher Education*, 61, 47–59. <https://doi.org/10.1016/j.tate.2016.10.001>
- Vescio, V., Ross, D. D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80–91. <https://doi.org/10.1016/j.tate.2007.01.004>
- Whitworth, B. A., & Chiu, J. L. (2015). Professional development and teacher change: The missing leadership link. *Journal of Science Teacher Education*, 26(2), 121–137. <https://doi.org/10.1007/s10972-014-9411-2>
- Woodland, R., Leonard, A. M., & Martinez, I. D. (2024). Teachers' perceptions about the value of protocols for professional development: Results of a qualitative investigation. *Teacher Development*, 28(2), 158–177. <https://doi.org/10.1080/13664530.2023.2265889>