



Departmental PLC and Implementation of Blended Instruction in Selected Ugandan Public and Private Universities

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Abstract: *This study examines how departmental Professional Learning Communities (PLCs) influence the implementation of blended instruction in Ugandan higher education. Since the pandemic forced everyone online, universities in Uganda have been trying to mix traditional classes with digital learning. However, the rollout has been uneven. Public universities such as Busitema and Muni are moving at a different pace than private universities such as Uganda Christian University (UCU) and Uganda Martyrs (UMU). Using a mixed-methods sequential explanatory design, the research surveyed 240 faculty members across these four institutions and conducted 24 semi-structured interviews to understand the link between departmental collaboration and digital pedagogy. The data show a clear link ($r = 0.68, p < 0.01$) between active departmental PLCs and the extent to which blended learning is implemented. This is especially true when those communities focus heavily on designing courses together and promoting open, reflective dialogue among staff. Interestingly, while private universities benefit from superior technological infrastructure, faculty in public universities demonstrate stronger informal peer-mentoring networks. Despite these efforts, widespread challenges persist, including unstable internet connectivity, high data costs, and institutional workload policies that fail to recognize the time required for blended teaching. This study concludes that technology alone cannot sustain digital transformation; instead, successful blended learning relies on an Ubuntu Bulamu framework for PLCs that prioritizes collective, relational, and community-led capacity building. Consequently, universities should formally integrate blended instruction into faculty workload models and establish structured, peer-led co-design teams within academic departments.*

Keywords: *Blended Learning, Professional Learning Communities, Uganda Higher Education, Digital Pedagogy, Ubuntu Bulamu*

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1. Introduction

Higher education across Africa is undergoing a significant transition as institutions increasingly complement traditional face-to-face teaching with digital and blended

learning models (Borsetto & Bier, 2021). In Uganda, the post-pandemic era forced a rapid pivot toward flexible delivery systems to accommodate an expanding student population that now exceeds 200,000 across both public and private universities. Yet simply deploying Learning Management Systems (LMS) and digital repositories does

not automatically translate into meaningful instructional reform. As Watuleke et al. (2026) point out, the true drivers of successful blended learning lie in active faculty engagement and collaborative pedagogy, rather than technological infrastructure alone.

While existing literature (Cheng, 2017; Moore, 2024; Li, 2025) extensively documents the technical and infrastructural bottlenecks in Uganda, such as unstable internet connectivity and prohibitive data costs, there remains a notable gap regarding the social and departmental dynamics that support high-quality instructional delivery. This study addresses that gap by using the Professional Learning Communities (PLC) framework, focusing specifically on Hord's (1997) dimensions of reflective dialogue, collective focus on student learning, and de-privatized practice. By applying this lens, the article examines how departmental culture either fosters or hinders the adoption of blended instruction.

Furthermore, by evaluating public institutions such as Busitema and Muni Universities alongside private counterparts such as Uganda Christian University (UCU), Mukono, and Uganda Martyrs University (UMU), Nkozi, this study offers a comparative perspective on how institutional ownership, resource allocation, and cultural values shape digital transformation. Ultimately, we propose a conceptual model grounded in the philosophy of *Ubuntu Bulamu* (Ubuntu), arguing that collective faculty agency and community-driven collaboration are essential, yet often overlooked, components for sustaining educational technology initiatives in Uganda.

1.1 Statement of the Problem

While Ugandan universities have poured significant money into Learning Management Systems (LMS) and digital infrastructure since the pandemic, the actual rollout of blended learning is still highly uneven and fragmented. Most existing research focuses almost entirely on infrastructure problems, such as high data costs and unreliable internet. However, this technical focus overlooks the human side of the equation, specifically, the departmental cultures and social dynamics that actually determine whether lecturers adopt these tools. Right now, there is a major disconnect: universities are buying and deploying digital platforms, but they are failing to build the collaborative workplace environments that faculty need to use them effectively.

This gap also looks very different depending on the type of university. Private universities often have better equipment and smoother administration, but they lack structured,

formal peer support. On the other hand, public universities are plagued by resource shortages, leaving faculty to rely on informal, ad-hoc peer networks just to get by. Without a clear understanding of how departmental Professional Learning Communities (PLCs) can bridge these specific gaps, institutional investments will continue to result in low faculty motivation and short-lived digital initiatives. Therefore, we need to examine how structured, culturally relevant collaboration within departments can move faculty past isolated tech adoption and toward a sustainable, community-driven approach to teaching.

1.2 Research Objectives

The main purpose of this study was to find out how departmental Professional Learning Communities (PLCs) influence the way blended learning is actually put into practice across public and private universities in Uganda. To guide the investigation, the study focused on four specific aims: i) Evaluate the connection between how active a department's PLC is and how much its lecturers actually use blended learning methods; ii) Analyze how specific parts of teamwork like designing courses together, having open discussions about teaching, and peer mentoring shape daily digital teaching habits; iii) Compare the structural setup, available technology, and campus cultures that affect how public universities (Busitema and Muni) and private universities (UCU and UMU) adopt blended learning; iv) Develop a practical training and support framework based on the philosophy of *Ubuntu Bulamu* to help Ugandan universities sustain their digital transitions over the long run.

To meet these objectives, the study sought to answer the following central questions: i) Is there a clear link between how active a university department's Professional Learning Community is and how thoroughly its faculty implements blended learning? ii) How do specific collaborative habits, such as co-designing courses and engaging in reflective dialogue, influence how lecturers handle digital pedagogy? iii) How do the institutional differences between Uganda's public and private universities shape both departmental teamwork and the success of blended learning? iv) How can the cultural values of *Ubuntu Bulamu* be used to build a reliable, peer-led professional development model for blended instruction?

2. Literature Review

2.1 Theoretical Framework

To understand how university departments adopt blended learning, this study draws on Shirley Hord's (1997)

framework for Professional Learning Communities (PLCs). Hord argues that educational improvement happens when staff collaborate closely rather than working in isolation. Specifically, this study focuses on three of her core dimensions: reflective dialogue, a collective focus on student learning, and de-privatized practice (where teaching is shared and observed by peers). By using this framework, the study shifts the focus away from a purely technical view of digital adoption. Instead of treating online teaching as an individual tech hurdle, Hord's lens treats it as a social process, allowing us to examine how daily departmental dynamics and peer interactions actually influence how faculty use Learning Management Systems (LMS).

However, because traditional PLC models were designed in Western contexts, they tend to overlook the unique social and cultural realities of African higher education. To make this framework relevant to Uganda, this study pairs Hord's dimensions with the indigenous philosophy of *Ubuntu Bulamu* (Ubuntu). While Hord emphasizes structural, goal-oriented teamwork to boost institutional efficiency, *Ubuntu Bulamu* brings in a deeply relational ethos centered on collective agency, empathy, and mutual responsibility. In Ugandan universities, where faculty must routinely navigate structural challenges like poor internet and high data costs, individualistic training programs usually fall short. Merging Hord's structural dimensions with the community-led spirit of *Ubuntu Bulamu* provides a realistic framework for analyzing how organic, peer-driven collaboration can keep digital transformation alive when resources are tight.

2.2 Empirical Review

Blended learning, defined as the deliberate integration of online digital interactions with traditional face-to-face instruction (Hlophe, 2025; Baran & Correia, 2014), has moved from an experimental necessity to a core structural priority within Sub-Saharan African higher education. However, its implementation occurs within a deeply divided digital landscape. While urban and well-funded campuses show rapid tech adoption, the broader regional reality is heavily shaped by structural constraints often referred to as the digital divide.

Recent empirical studies highlight that these constraints are both physical and pedagogical. For instance, in an evaluation of online delivery systems at Uganda Technology and Management University (UTAMU), Kisembo et al. (2025) found that while Learning Management Systems (LMS) noticeably boosted student engagement when accessible, lecturers faced continuous disruptions due to unstable internet connections and a baseline deficit in advanced ICT competencies. This reality

underscores that infrastructure alone does not guarantee instructional change. Rather, when faculty lack deep digital proficiency, the integration of technology frequently fails to meet the needs of a diverse student population, a challenge further documented by Rullonga Kanyesigye (2026) in an assessment of inclusive digital spaces in Ugandan universities.

Interestingly, institutional models play a significant role in how these challenges are managed. Private institutions often navigate resource barriers (Hofstatter, 2024) with greater administrative flexibility. UTAMU, for example, stands out as an illustrative case where technology has been comprehensively integrated into the faculty of management sciences. This suggests that institutional agility, prompt policy adaptation, and centralized resource allocation can insulate an institution from some of the broader infrastructural limitations plaguing the country's higher education sector.

Professional Learning Communities (PLCs) in Higher Education

Educators in the Global North have historically used Professional Learning Communities (PLCs) to update teaching methods and maintain consistent classroom standards across the board. However, Wenger-Trayner (2020) argued that transplanting Western-centric PLC models directly into African higher education often overlooks vital indigenous social structures. Within the Ugandan context, the philosophy of *Ubuntu Bulamu*, an indigenous ethical framework rooted in collective care, mutual responsibility, and community-driven progress, offers a culturally grounded alternative for conceptualizing PLCs.

When applied to academic departments, *Ubuntu Bulamu* shifts the focus from individual accountability to communal professional development. Research at Makerere University by Watuleke et al. (2026) supports this perspective, revealing that ground-up innovation in blended course design relies heavily on informal, relational dynamics. They observed that peer mentorship and interdisciplinary collaboration were the primary drivers of faculty commitment to digital tools, essentially operating as highly effective, organic PLCs.

Despite their practical impact, these collaborative networks are rarely recognized within formal institutional frameworks. University administrations tend to view professional development as an individual, compliance-driven metric rather than a collective endeavor. The lack of institutional recognition, formal workload allocations, and structured policy incentives often leaves these informal networks vulnerable to faculty burnout and high turnover.

This study addresses this tension by examining the relationship between structured departmental collaboration and instructional outcomes. As put forward by Wenger (1998), we test the hypothesis that academic departments with formalized, intentional PLC practices, such as collaborative course co-design, structured peer reviews, and collective reflections on digital teaching, demonstrate significantly higher fidelity in blended instruction than departments where faculty members continue to design and deliver their courses in isolation.

3. Methodology

3.1 Research Design

This study used a mixed-methods sequential explanatory design. This approach involves a two-phase data collection process (Hampson & McKinley, 2023) where quantitative data is gathered and analyzed first, followed by qualitative data to help explain the initial results (Creswell & Creswell, 2018). The main reason for choosing this design is that numbers alone cannot tell the whole story. Quantitative data provides a broad, statistical map of how departmental Professional Learning Communities (PLCs) relate to blended instruction. However, the subsequent qualitative phase is necessary to explain the human experiences, institutional cultures, and challenges behind those statistics (Ivankova et al., 2006). Given that public and private universities in Uganda operate under vastly different financial and structural realities, this design ensures that statistical trends are deeply understood through the actual lived experiences of the faculty.

3.2 Quantitative Phase

The study began with a survey to establish a macro-level understanding of how active departmental PLCs correlate with the implementation of blended instruction. Data was collected using a structured, closed-ended questionnaire given to 240 faculty members across four selected universities (Busitema, Muni, Uganda Christian University, and Uganda Martyrs University). The questionnaires used validated academic scales, adapting Hord's (1997) Professional Learning Communities Assessment (PLCA) alongside rubrics measuring the fidelity of blended learning implementation. Faculty members scored these items on a Likert scale, which generated numerical datasets regarding tech usage, meeting frequencies, and peer-review habits. This data was used to map out the general relationship between PLCs and digital pedagogy across institutions and to highlight the statistical differences between the public and private sectors.

A critical step in sequential explanatory designs is how the two phases connect (Creswell & Plano Clark, 2023). Instead of running two separate studies, the preliminary statistical findings from the 240 surveys were used directly to shape the qualitative tools. For example, when the survey data revealed a surprisingly strong presence of informal peer mentoring in public universities despite poor infrastructure, this specific trend was used to design the interview guide for the next phase. It allowed the study to purposively select 24 key informants, such as department heads and active teaching faculty, who could explain the patterns found in the survey.

3.3 Qualitative Phase

With the statistical baseline established, the qualitative phase was launched to investigate the "how" and "why" behind the numbers. This was done through 24 semi-structured interviews, evenly split across the participating public and private institutions. These interviews allowed faculty members to speak openly about their daily institutional realities. During these deep-dive conversations, the cultural nuances of *Obuntu Bulamu* became clear; lecturers explained how they relied on communal networks and shared personal internet bundles to keep their digital classes running. The qualitative narratives provided the necessary context to understand why private university infrastructure did not automatically guarantee organic collaboration, and how public university faculty bypassed systemic bottlenecks through informal solidarity.

3.2 Sample and Context

To ensure a fair comparison across Uganda's diverse higher education landscape, four universities were selected based on two main factors: institutional ownership (public versus private) and blended learning experience (from emerging to advanced). This created a balanced group of institutions: Busitema University: A public institution known for high research output but moderate digital integration; Muni University: A public, upcountry institution with nascent, emerging digitalization; Uganda Christian University (UCU): A private university with well-established tech infrastructure and a fully blended pedagogical model; Uganda Martyrs University (UMU): A private liberal arts institution operating with an agile approach to digital experimentation.

From these four universities, the study recruited a total of 240 academic staff members. A sample of 60 faculty participants was drawn from each university to complete the quantitative survey. Following this, 24 participants (six from each institution) were selected for in-depth, semi-

structured interviews to provide qualitative detail on the survey findings.

3.3 Data Collection Tools

The study used two main measurement tools, both adapted and tested for the Ugandan higher education context.

First, the Professional Learning Community (PLC) Assessment was a 20-item Likert-scale tool adapted from the Professional Learning Community Assessment–Revised (PLCA-R) by Huffman and Hipp (2003) and Olivier et al. (2009). This scale measured five main areas of departmental PLCs: i) Shared Vision (4 items): How much faculty collectively commit to blended learning goals. ii) Collaborative Activities (4 items): The frequency and depth of joint lesson planning and resource sharing. iii) Reflective Dialogue (4 items): How openly do faculty talk about teaching successes and failures? iv) Collective Focus on Student Learning (4 items): Departmental attention to student outcomes and making adjustments based on data. v) De-privatized Practice (4 items): The willingness of faculty to open their physical and virtual classrooms to peer feedback.

Each item was scored on a five-point scale from 1 (Strongly Disagree) to 5 (Strongly Agree), where higher scores indicated stronger departmental cooperation.

Second, the Blended Instruction Implementation (BII) Scale was a 15-item self-report tool developed for this study based on blended teaching frameworks by Graham et al. (2013) and Archambault and Barnett (2010). It measured four key areas of digital teaching, which include: i) LMS Use Frequency (4 items): How regularly faculty upload content, maintain gradebooks, and track assignments. ii) Digital Content Creation (4 items): Whether faculty create original video lectures, interactive quizzes, or readings. iii) Online Discussion Facilitation (4 items): The consistency and quality of instructor-led forum moderation. iv) Use of Learning Analytics (3 items): How much faculty use LMS data (e.g., student logins and quiz performance) to help struggling students.

Each item was rated on a frequency scale from 1 (Never) to 5 (Always). Total scores ranged from 15 to 75, categorized into Low (15–34), Moderate (35–54), and High (55–75) implementation. Preliminary reliability testing showed strong internal consistency, with a Cronbach's alpha of 0.91 for the PLC Assessment and 0.89 for the BII Scale.

3.4 Data Collection Procedure

Data collection was carried out systematically across the four universities over a period of four months. For the first phase, the quantitative survey was built into an online form via Google Forms and distributed to faculty through official institutional emails and departmental WhatsApp groups. To boost response rates, the researcher worked with departmental administrative assistants who sent out weekly reminders. Once the 240 complete surveys were gathered, the responses were compiled, and preliminary statistical checks were carried out.

The results of these checks were used to refine the semi-structured interview guides for the second phase. Faculty members who indicated willingness to participate in follow-up interviews during the survey phase were contacted individually to schedule the qualitative sessions. The 24 interviews were conducted either face-to-face in the lecturers' offices or virtually via Zoom, depending on the participant's preference. Each interview lasted between 45 and 60 minutes and was audio-recorded with the explicit permission of the participant.

3.5 Data Analysis

The data analysis followed the sequential nature of the research design, keeping the quantitative and qualitative parts connected but distinct. Quantitative data from the surveys were exported from Google Forms into SPSS for analysis. Descriptive statistics (means and standard deviations) were calculated to evaluate the activity level of the PLCs and the extent of blended learning use. Inferential statistics, specifically the Pearson correlation coefficient (r), were used to determine the strength and direction of the relationship between departmental collaboration and digital teaching implementation. Independent samples t -tests were also run to look for significant differences between public and private institutions regarding their infrastructure and informal networks.

For the qualitative data, the audio recordings from the 24 interviews were transcribed verbatim. The transcripts were then analyzed using thematic analysis. The researchers read through the text multiple times to generate initial codes, which were then grouped into broader themes representing the challenges and successes of blended teaching. Finally, the quantitative results and qualitative themes were brought together in the discussion section, using the personal insights from the interviews to explain and contextualize the statistical numbers.

3.6 Ethical Considerations

Before heading into the field, ethical clearance was obtained from the relevant institutional research ethics committees. The researchers secured administrative permission from the Deans and Heads of Departments at Busitema, Muni, UCU, and UMU before approaching staff. Every participant was given an informed consent form that clearly explained the purpose of the study, that participation was completely voluntary, and that they could drop out at any time without any negative consequences. To protect everyone's privacy, no names or identifiable personal details were used in the surveys or interview transcripts; instead, alphanumeric codes (e.g., Lecturer A, Public University 1) were assigned to all participants. All digital data, including survey responses and interview recordings, was encrypted and stored securely in a password-protected cloud account accessible only to the primary research team

4. Results and Discussions

4.1 Quantitative Results

Before proceeding with inferential statistical testing, the psychometric integrity of both measurement instruments was rigorously examined. The Professional Learning Community (PLC) Assessment demonstrated exemplary internal consistency, yielding a Cronbach's alpha coefficient of $\alpha = 0.91$, while the Blended Instruction Implementation (BII) Scale also exhibited strong reliability with $\alpha = 0.89$. These coefficients, well above the conventional threshold of 0.70 established by Nunnally and Bernstein (1994), affirm that both instruments possess high internal reliability and are therefore well-suited for comparative analysis within the Ugandan higher education context. No item deletion was necessary to improve scale performance, confirming that all 20 PLC items and 15 BII items functioned cohesively across the full sample of 240 faculty respondents.

4.1.1 The Central Relationship: PLC Strength as a Predictor of Blended Instruction

To examine the hypothesized association between departmental Professional Learning Communities and the fidelity of blended instruction implementation, a Pearson product-moment correlation coefficient was computed. The analysis revealed a strong, positive, and statistically significant correlation between the composite PLC score and the composite BII score ($r = 0.68$, $p < .01$, two-tailed). This finding, interpreted according to Cohen's (1988) conventions for effect size magnitude (where $r \geq 0.50$

denotes a large effect), indicates that nearly 46% of the variance in blended instruction implementation can be explained by the strength of departmental PLCs ($r^2 = 0.46$). In substantive terms, faculty working within departments characterized by robust collaborative cultures—marked by frequent reflective dialogue, shared instructional vision, and de-privatized teaching practices—were substantially more likely to report frequent and sophisticated use of blended pedagogies, including LMS engagement, digital content creation, online discussion facilitation, and data-informed teaching adjustments. This result provides compelling empirical support for the theoretical centrality of social and relational infrastructures in driving pedagogical transformation within resource-constrained African university settings.

4.1.2 Institutional Ownership and Implementation Outcomes: Surprising Equivalence

A critical objective of this study was to compare blended instruction implementation between Uganda's public and private universities, given widespread assumptions that private institutions with their generally superior technological infrastructure and administrative flexibility would significantly outperform their public counterparts. To test this hypothesis, an independent-samples t-test was conducted, comparing the mean BII scores of public university faculty ($n = 120$) and private university faculty ($n = 120$). Contrary to prevailing expectations, the analysis revealed no statistically significant difference in overall blended instruction implementation between the two sectors. Public university faculty recorded a mean BII score of 3.45 ($SD = 0.65$), while private university faculty achieved a marginally higher mean of 3.52 ($SD = 0.70$). The resulting t-value of 0.45 with 238 degrees of freedom yielded a p-value of 0.65, substantially exceeding the conventional alpha threshold of 0.05. In practical terms, this finding indicates that, despite notable disparities in hardware availability, internet connectivity, and institutional investment, faculty in public universities are implementing blended instruction at levels statistically indistinguishable from their private university counterparts.

4.1.3 Divergent Pathways: Where Public and Private Universities Excel

Although overall implementation scores did not differ significantly, a more nuanced examination of the sub-dimensions driving these aggregate outcomes revealed a compelling pattern of institutional divergence. Specifically, when disaggregating the data by individual PLC and BII sub-scales, striking differences emerged in the mechanisms through which each sector supports blended instruction.

Public universities demonstrated significantly higher scores on two critical PLC dimensions. On reflective dialogue, public university faculty reported more frequent candid conversations about teaching challenges, pedagogical experimentation, and collective problem-solving regarding digital instruction. Similarly, on *De-privatized Practice*, public university faculty were more willing to open their classrooms both physically and virtual to peer observation, constructive critique, and collaborative instructional redesign. These findings suggest that within public universities, a culture of pedagogical vulnerability and mutual support, born partly of shared infrastructural struggle, serves as a powerful engine for organic professional learning.

Conversely, private universities excelled in dimensions related to *Supportive Conditions*, encompassing both technological access and protected time for instructional innovation. Faculty at private institutions reported significantly greater availability of reliable internet

connectivity, functional computing devices, technical support personnel, and, critically, formal workload allocations that recognize blended course design as legitimate academic labor. These enabling conditions, while not translating into statistically higher overall BII scores, nevertheless created an environment in which faculty could, if individually motivated, pursue digital pedagogy with fewer external impediments.

4.1.4 A Disaggregated Portrait: Statistical Comparisons Across Dimensions

To render these divergent pathways visible, Table 1 presents the comparative mean scores, standard deviations, mean difference, and significance levels for four key instructional and infrastructural dimensions, disaggregated by institutional ownership.

Table 1: Comparative Analysis of Selected Dimensions Between Public and Private Universities (N = 240)

Dimension	Public n=120 Mean (SD)	Private n=120 Mean (SD)	Mean Difference	Significance (p-value)
Shared Vision for Blended Learning	3.82 (0.58)	3.45 (0.62)	+0.37	p < .05
Collaborative Course Design (PLC)	4.01 (0.51)	3.22 (0.67)	+0.79	p < .01
Technical Infrastructure Access	2.95 (0.73)	4.50 (0.48)	-1.55	p < .001
Use of LMS Analytics	2.80 (0.69)	3.90 (0.55)	-1.10	p < .01

Note. All means are based on a five-point Likert scale (1 = Low/Disagree; 5 = High/Agree). Significance tests were conducted using independent samples t-tests with equal variances not assumed, where Levene's test indicated heterogeneity.

As evident from Table 1 above, public universities significantly outperformed private universities on *Shared Vision for Blended Learning* (M = 3.82 vs. 3.45, p < .05) and, most notably, on *Collaborative Course Design* (M = 4.01 vs. 3.22, p < .01), with the latter representing a substantial mean difference of nearly 0.80 points on a five-point scale. This finding underscores that public university departments, despite infrastructural deficits, have cultivated stronger collective orientations toward blended pedagogy and more frequent joint instructional planning.

Conversely, private universities demonstrated overwhelming advantages on *Technical Infrastructure Access* (M = 4.50 vs. 2.95, p < .001), a difference of 1.55 points, which is the largest observed gap across all dimensions. Similarly, private institutions led significantly on *Use of LMS Analytics* (M = 3.90 vs. 2.80, p < .01), indicating that faculty at private universities are more likely to employ data-driven teaching practices, including tracking student engagement, monitoring quiz performance, and identifying at-risk learners. Taken together, these diverging profiles suggest a critical insight. While private universities possess the *hardware* for data-rich blended learning, public universities possess

the *humanware* of collaborative pedagogical culture. Neither sector, however, has yet fully integrated the strengths of the other.

In summary, the quantitative results highlight three major points. First, strong departmental PLCs are major drivers of blended learning implementation across both sectors. Second, public and private universities achieve comparable adoption rates, meaning private institutions do not have a statistically significant upper hand. Third, their institutional approaches are starkly different: public universities rely on a culture of collaboration, while private universities rely on technical infrastructure and administrative backing. This divergence, captured in Table 1 above, transitions into the qualitative section, where we examine the day-to-day realities of the faculty.

4.2 Qualitative Results

To add depth to the statistical patterns found in the first phase, the researchers conducted semi-structured interviews with 24 faculty members and department heads, purposively selecting six participants from each of the four

universities. After audio-recording and transcribing the interviews verbatim, I analyzed the data using Braun and Clarke's (2006) six-step thematic framework, moving from initial data immersion and coding to final theme definition. To check coding reliability, a colleague and I independently coded 30% of the transcripts. Our Cohen's kappa coefficient was 0.84, indicating strong inter-rater agreement.

The qualitative analysis revealed three primary themes that contextualize our quantitative results. Specifically, they explain how public and private universities manage to reach similar blended learning benchmarks through entirely different pathways. To keep the focus on the actual experiences of the faculty, these themes are supported directly by the participants' own words and quotes.

4.2.1 The "Peer-Mentorship" Safety Net. An Organic PLC in Public Universities

The first theme explains exactly why public universities scored so much higher on Reflective Dialogue and De-privatized Practice, despite having weaker tech setups. Teachers in public universities repeatedly described a culture of informal, peer-to-peer mentoring. This essentially acted as a safety net, making up for the lack of formal IT support. Since they couldn't rely on institutional tech help, faculty naturally turned to each other to solve digital teaching problems on the fly.

This teamwork played out in two main places: physical hallways and departmental WhatsApp groups. Several senior lecturers at Busitema University mentioned how office corridors turned into impromptu troubleshooting hubs during brief, everyday encounters. On a more organized level, faculty across public institutions set up department-specific WhatsApp groups dedicated entirely to navigating blended learning hurdles. These digital networks operated completely outside the official administration, yet they were incredibly effective. One senior lecturer at Busitema University put it bluntly:

"The formal IT support is slow. You submit a ticket, and maybe after three days, someone responds. But my colleague in the next office, who learned Canvas just last week, shows me how to upload a grade, how to create a quiz, and how to download the attendance log. That is our real PLC that door-to-door, desk-to-desk help... though we don't call it that. We don't have a fancy name. We just survive together."

Notably, this peer-mentorship safety net was characterized by a non-hierarchical, reciprocal structure. Junior faculty

with digital fluency mentored senior professors in technical operations, while senior faculty reciprocated with guidance on curriculum alignment, assessment validity, and pedagogical sequencing, creating a distributed expertise model that defied conventional mentorship hierarchies. As another respondent explained:

"The young lecturer who just graduated knows Moodle inside out. But he does not know how to write learning objectives that align with national standards. I teach him that; he teaches me the platform. That is Ubuntu in action. That is our department."

Crucially, however, participants acknowledged that this organic system, while effective, remained precarious. It depended entirely on the presence of a few digitally confident *champions* whose departure, whether through promotion, resignation, or retirement, could collapse the entire support network. One department head lamented:

"Last year, our best digital person left for a PhD abroad. The whole department struggled for two months. We realized we had no system, only individuals. That is the weakness of our way. It works beautifully until it doesn't."

Thus, Theme 1 reveals that public universities have cultivated what might be termed as emergent PLCs with collaborative structures born of necessity, sustained by relational trust, and animated by the philosophy of Ubuntu Bulamu, yet vulnerable to personnel turnover and lacking institutional codification.

4.2.2 The Resource Trap. When Infrastructure Outpaces Community

The second theme addresses a paradox evident in the quantitative data: private universities possess superior technological infrastructure and yet do not outperform public universities in overall blended instruction implementation. The qualitative findings resolve this paradox by revealing that high-resource environments do not automatically generate high-quality PLCs; indeed, in some cases, the absence of a collaborative culture transforms technological abundance into what participants called a "resource trap."

The interview data revealed striking heterogeneity among private institutions. At Uganda Christian University (UCU), the PLC structure was explicitly policy-driven, systematic, and institutionalized. Unlike the emergent, informal networks of public universities, UCU had embedded a collaborative blended learning review into the

formal weekly schedule. A senior administrator described this approach with evident pride:

"We have structured 'Digital Fridays' where every department meets for two hours to review data from the LMS. We look at student logins, quiz completion rates, grade distributions, and discussion board participation. It is not optional. It is not a suggestion. It is our culture, written in our faculty handbook. The Dean attends. The agenda is posted. Minutes are kept."

This systemic approach yielded high scores on *Technical Infrastructure Access and Use of LMS Analytics* observed in the quantitative data. Faculty at UCU Mukono did not need to rely on hallway conversations or WhatsApp troubleshooting; they had scheduled time, dedicated spaces, and mandated data reviews. However, as one UCU lecturer noted, even this structured system had limitations: *"We meet. We look at the numbers. But do we really talk about teaching? Sometimes. Often, we just report. The spirit is sometimes missing."*

In stark contrast, participants from UMU Nkozi, another private institution, a newer, startup university with a liberal arts orientation, described a profoundly different experience. Despite possessing modern computers, reliable internet, and licensed LMS software, faculty reported feeling professionally isolated, pedagogically unsupported, and culturally disconnected. A junior lecturer at this institution captured the emotional and professional toll of this resource-rich but relationally poor environment:

"We have computers. We have the software. We even have air conditioning in the lab. But no one shares the pedagogy. No one sits with me to discuss how to facilitate an online discussion, how to give feedback on a digital assignment, or how to keep students engaged when they are not in the room. It is sink or swim. I am sinking."

This participant's testimony illuminates a critical insight that technology alone does not teach; relationships do. The absence of what one participant termed the "Ubuntu spirit," the collective orientation that prioritizes shared growth over individual survival, rendered technological abundance functionally inert. Another senior faculty member at the same institution reflected:

"We hired young, tech-savvy people. We gave them laptops. We assumed they would figure it out. But we forgot that blended learning is not just about clicking buttons. It is about reimagining your entire identity as a teacher. That

reimagining happens in community, not in isolation."

Thus, Theme 2 explains the quantitative paradox by demonstrating that private universities fall into two categories: those with systemic but impersonal PLCs (like UCU) and those with minimal or absent PLCs (like Muni - the startup institution). The former achieves high analytics use but risk procedural superficiality; the latter possess abundant hardware but lack the human infrastructure to activate it. Neither, however, has yet replicated the organic, dialogic, trust-rich PLC culture observed in public universities.

4.2.3 The Invisible Labor of Blended Teaching. Workload, Recognition, and the "File Dump" Reversion

The third and most pervasive theme to emerge from the interview data concerns the structural misalignment between the labor demands of quality blended instruction and the formal workload policies of Ugandan universities. Across all four institutions, public and private, resource-rich and resource-poor participants overwhelmingly agreed that collaborative blended course design requires substantial, often unrecognized, time investments. The data revealed a striking consensus: 22 out of 24 participants (91.7%) explicitly stated that the time demands of blended instruction exceeded institutional expectations and that the absence of formal workload allocation for PLC activities actively discouraged deep, sustained implementation.

Across the board, participants estimated that taking just one traditional course and turning it into a high-quality blended format added an extra 15 to 20 hours of work per week during the initial setup phase. This meant building original digital content, setting up interactive online discussions, keeping up with LMS analytics, and maintaining steady feedback loops. Even after the course was up and running, just maintaining it tacked on an extra 5 to 8 hours every week. One senior lecturer at a public university mapped out her schedule with a sense of meticulous frustration:

"Recording one 20-minute video lecture takes me three hours. This is because it involves writing the script, finding images, recording, editing out mistakes, adding captions, uploading, and checking that the link works. And that is just one week's content. Multiply that by three courses. Where is that time in my contract? It is nowhere. I do it at midnight. I do it on Sunday after church. I do it because I care about my students. But I am exhausted."

Crucially, participants reported that without formal recognition of PLC collaboration as legitimate academic labor, most faculty eventually defaulted to what multiple interviewees termed the "file dump" method, whereby the lecturer would post PDFs, PowerPoint slides, and scanned textbook chapters onto the LMS without interactive elements, discussion facilitation, or analytics-informed adjustments. One department chair described this phenomenon as the central implementation barrier:

"You can buy the LMS. You can train in the faculty. You can even mandate its use. But if you do not give them time to learn together, to design together, to fail together and try again together, they will do the bare minimum. They will upload the syllabus and the lecture notes. They will check the box. But they will not transform their teaching. That is where we are stuck across the country."

This reversion to low-effort digital practices was not, participants emphasized, a matter of laziness or resistance to change. Rather, it represented a rational adaptation to an unsustainable workload. One young lecturer, initially enthusiastic about blended learning, described her gradual withdrawal:

"In my first semester, I made video lectures, hosted live Zoom office hours, responded to every discussion post individually, and used the analytics to identify struggling students. My evaluations were excellent. But I slept four hours a night. My research stopped. My family complained. Now, I upload the PDFs and call it blended learning. I hate doing this. But I cannot afford to burn out."

The qualitative data also revealed a small but instructive minority: two participants (both from institutions with formal workload adjustments for blended course design) reported sustainable, high-quality implementation. These exceptional cases demonstrated that when departments collectively negotiate workload policies and when university administrators recognize PLC collaboration as legitimate labour, faculty can maintain deep blended practices without sacrificing well-being or research productivity. As one such participant explained:

"In our department, we negotiated that developing one blended course counts as 40% of your teaching load for that semester. We meet every Tuesday for two hours as a PLC on paid time, not voluntary. Because of that, I can do this well. I have energy. I am creative. I am not just surviving; I am thriving."

4.2.4 Synthesis of Qualitative Findings

In synthesis, the three thematic findings provide a rich explanatory framework for the quantitative results. Theme 1 explains why public universities excel in reflective dialogue and de-privatized practice: they have cultivated organic, necessity-driven peer-mentorship networks that function as emergent PLCs, yet these remain informal and institutionally unrecognized. Theme 2 explains why private universities, despite superior technology, do not outperform their public counterparts: high-resource environments vary dramatically in their collaborative cultures, with some developing systemic but impersonal PLCs (yielding high analytics use but low pedagogical depth) and others lacking PLCs entirely (producing isolated, sink-or-swim faculty experiences). Theme 3 cuts across both sectors to reveal the fundamental structural barrier: the invisible labour of blended instruction, estimated at 15–20 additional hours weekly, is systematically uncompensated, leading most faculty to revert to low-quality "file dump" practices unless workload policies explicitly recognize PLC collaboration as legitimate academic work. Together, these themes demonstrate that sustainable blended instruction in Ugandan higher education requires not merely computers and connectivity, but rather a deliberate, resourced, and culturally grounded investment in departmental professional learning communities as an investment that currently exists only in fragments, unevenly distributed across public and private institutions alike.

4.3 Discussions

If there is one major takeaway from these findings, it is that we need to stop looking at technology infrastructure as the make-or-break factor for blended learning in Uganda. It is easy to assume that better hardware equals better teaching, but the reality on the ground tells a different story. Private institutions like UTAMU certainly have the upper hand when it comes to gadgets and reliable bandwidth, yet they aren't outpacing public universities when it comes to shifting how teachers teach. Instead, the data points to something more human: the tight-knit, collaborative culture kept alive within public university departments. Born out of a shared struggle, this survival mechanism has fostered organic PLCs that are remarkably effective at getting things done.

This dynamic deeply mirrors the African philosophy of *Obuntu Bulamu*, i.e. the idea that "I am because we are." What we are seeing here is that sustainable blended learning relies entirely on what we can call "Relational Infrastructure." When a department treats the shift to digital

learning as a collective team effort rather than an individual burden to carry alone, adoption rates naturally climb.

However, the study also exposes a glaring vulnerability in the public university model. That is to say, the institutional memory, because right now, the PLCs in public institutions are heroic rather than systemic. They rely almost completely on the sheer willpower of individual digital champions. If one of those key people leaves the department, the whole framework collapses. On the flip side, UTAMU's (2024) highly structured approach, like mandatory, scheduled LMS data reviews, ensures the work continues no matter who is in the room. The trade-off is that it often feels bureaucratic, lacking the deep pedagogical reflection and spontaneous support we observed in the public universities.

Ultimately, the most unique contribution of this research and what sets it apart for international scholarship is the discovery that *collegiality compensates for connectivity*. Most global literature on educational technology focuses heavily on infrastructure, bandwidth, and software licenses. This paper turns that narrative on its head. It proves that for African higher education, once a basic digital foundation is in place, investing in departmental collaboration and human relationships yields a far better return on investment than simply buying more servers.

5. Conclusion and Recommendations

5.1 Conclusion

When you look at the big picture, departmental PLCs emerge as the single most critical factor in determining whether blended instruction actually takes root in Ugandan universities. The debate should not just be about who has the fastest internet or the newest computers. While private institutions clearly lead the race in terms of hardware and technical setup, public universities are quietly winning when it comes to the "human software" of collaboration and mutual support. Right now, both sectors are working with only half the equation.

The path forward requires moving away from these isolated silos. If we want blended learning to be both deeply transformative and sustainable, the ideal model has to be a hybrid one. This correlates with Nacheva's (2025) call. We need to marry the structured, well-resourced efficiency of an institution like UTAMU with the reflective, community-driven *Ubuntu* spirit found in the hallways of Makerere. True innovation in African higher education won't come from just copying Western tech models; it will come from structurally supporting the faculty networks that are already doing the heavy lifting.

5.2 Recommendations for Policy

Translating these findings into actual practice means shifting our focus away from massive IT procurement budgets and moving toward institutional policies that support the people doing the work. If we want blended learning to succeed across the board, the National Council for Higher Education (NCHE) and university administrators should focus on three practical policy changes:

1. Formalize the Informal. Right now, public universities are staying afloat on the uncompensated goodwill of their faculty. This is not sustainable. The NCHE needs to explicitly recognize peer mentorship and collaborative digital design as actual faculty workload hours, rather than treating them as things teachers just do in their spare time. If a lecturer spends three hours a week helping colleagues troubleshoot their online modules or co-designing a digital course, those hours should count toward their official teaching and administrative load. We have to stop treating community-building as an afterthought and start measuring it as a core institutional duty.

2. Implement the Reverse Buddy System. Traditional academic hierarchies usually place the entire burden of mentorship on senior professors. We need to flip that on its head when it comes to technology. Universities should introduce a structured "Digital Buddy" system that pairs tech-savvy junior lecturers with senior professors who possess deep pedagogical experience but struggle with the digital tools. This creates a mutually beneficial partnership. The junior faculty member helps the senior professor build and manage their online courses, and in return, the senior professor provides valuable mentorship on research, publishing, and navigating academia. It turns a potential point of frustration into a collaborative win-win.

3. Prioritize Low-Tech, High-Touch PLCs. University leaders need to stop using a lack of high-speed internet as an excuse for delaying pedagogical reform. We cannot wait for nationwide fiber-optic grids to fix everything. Instead, policy should mandate the optimization of what is already there. Departments should be supported in setting up local, zero-rated intranet systems using local campus Wi-Fi networks that allow faculty to share content, collaborate on modules, and access learning management systems without burning through expensive external internet bundles. By focusing on low-bandwidth, high-collaboration tools, departments can keep building their professional communities regardless of their connectivity status.

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