Exploring the professional learning and development needs of public primary school teachers in Lagos State, Nigeria

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ABSTRACT

Considering that teachers are the most influential in improving student learning, it is essential to understand their professional learning and development (PLD) needs. This exploratory research examined the existing and desired PLD of primary public school teachers in Lagos State, Nigeria. We used an online survey to collect data, and 87 teachers from six Lagos State school districts participated. The findings provided evidence to direct current and future PLD. We concluded that a re-conceptualization of PLD among teachers would support developing a stronger sense of teacher empowerment and self-efficacy through more self-directed PLD. These recommendations could be beneficial for improving the teaching quality and reducing the learning crisis in Lagos State, Nigeria and beyond.

Keywords: self-directed professional learning and development, self-efficacy, teacher empowerment, learning crisis

INTRODUCTION

Teachers are deemed the most influential in increasing student learning (Leithwood et al., 2020). Accordingly, Gore (2020) claimed an intense interest and financial investment in improving teaching globally. Many argue that a student's success in education depends on the teaching quality (Organization for Economic Co-Operation and Development [OECD], 2018; Sancar et al., 2021). As a result, teachers continually enhance their teaching practices throughout their careers by engaging in lifelong learning involving ongoing professional learning and development (PLD). Generally, PLD refers to any engagement to expand and refine teachers' knowledge and skills. Examples of PLD include, but are not limited to, on-the-job training, coaching, mentoring, seminars, workshops, book clubs, in-school sessions, and various other self-selected initiatives (Popova et al., 2022).

In many countries, PLD for teachers is primarily offered by Lagos State (or government) (Fareo, 2015). However, it is noteworthy that Nigeria, like other developing countries, has been identified as having a learning crisis (World Bank, 2018). This crisis refers to a situation in which learning outcomes remain unsatisfactory despite the increasing access to schooling (Beeharry, 2021). As an identifying label, the learning crisis has led to much debate and scrutiny, particularly concerning the quality of teachers. Derived from these concerns, we suggested a disconnect between the effectiveness of past and current PLD (i.e., state-led) to improve the quality of teachers, contributing to

limitations for improving the learning crisis. Our observations prompted further investigation into any discrepancies between teachers' PLD needs and the opportunities currently offered.

This exploratory research aimed to achieve two objectives. The first was to identify plausible reasons for a mismatch in PLD opportunities and outcomes for improving teaching quality, leading to increased student learning. The second was to increase research-based and context- or place-based evidence (further referred to in this article as RCBE) to reduce an identified gap in the literature of specific RCBE. This study was from the Nigerian context, but the discovery process of RCBE could also be used in any school context. We collected data using an online qualitative survey from 87 primary teachers across six school districts in Lagos State, Nigeria. Our study, from the perspectives of these primary public school teachers, focused on their current and future PLD opportunities.

Our research objectives aligned with the work of Lambirth et al. (2021), who suggested that PLD is most effective when it is contextualized and tailored to address the teachers' specific needs–and, by extension, the needs of the students. Furthermore, Bronfenbrenner's (2005) theory of social development of learning advocates the importance of context (i.e., "the setting or situation that interacts with the individual's thoughts, feelings and actions to shape development and learning" [Woolfolk et al., 2016, p. 70]), informed our study. Recognizing the significance of context, including location, setting, environment, and culture, on the teachers' perspectives, we acknowledged how teachers' past and current context shape their

beliefs, behaviors, and knowledge about PLD. These points should be considered when PLD is applied globally to PLD for teachers.

Drawing from previous literature conducted globally about effective PLD and what we learned from the RCBE in this study, we concluded a new PLD framework would be beneficial in any education setting: a perspective shift from an overreliance on external stakeholders (i.e., Lagos State) to increasing self-efficacy and agency of the teachers for improving their teaching quality. Based on the RCBE, which became critical knowledge about the past and current PLD, we proposed actionable recommendations to address the identified needs of Lagos State primary school teachers to enhance the effectiveness of PLD opportunities and outcomes among the primary teachers in the Lagos State school districts. Consequently, we are eager to continue our research with these participants to refine further, implement these recommendations and report on the outcomes.

LITERATURE REVIEW

Professional Learning and Development

Literature is abundant on PLD. To provide context for our study, we presented a brief overview focused on four key areas:

(1) the purpose and definition of PLD,

(2) its organization and format,

(3) common challenges, and

(4) potential solutions for improving PLD.

Purpose and definition of PLD

The most widely accepted purpose of PLD is to foster improvements in teaching (Kennedy, 2016, 2019). Guskey (2000) defined PLD as "those processes and activities designed to enhance the professional knowledge, skills, and attitudes of educators so that they might, in turn, improve the learning of students "(p. 16). According to the OECD (2005), *effective* PLD is "ongoing, includes training, practice and feedback, and provides adequate time and follow-up support" (p. 129). Additionally, Evans (2019) added that genuine professional learning should involve behavioral, intellectual and attitudinal changes. However, the caveat, as Didion et al. (2020) explained, is that PLD opportunities should match the teachers' needs, providing "adequate training to implement evidence-based practices so that students can receive high-quality instruction" (p. 1). Overall, PLD opportunities should prioritize enabling teachers to continuously expand their knowledge and skills, ensuring they can integrate the best teaching pedagogies and educational practices into their classrooms (Lloyd & Davis, 2018).

Organization and format

The organization of PLD includes elements such as the organizer, target audience, and delivery methods (Popova et al., 2022). Reviews of comprehensive PLD programs (see, for example, Kennedy, 2016; The New Teacher Project [TNTP], 2015) suggested that the format of PLD can vary from conferences, seminars, and courses at any learning institution. Furthermore, the format can be formal and non-formal learning experiences. Traditional formats of PLD often include collaborative learning communities, workshops, one-day seminars, reflective practices, self-assessments, action research, inquiry-based learning, mentoring, and coaching. In contrast, the non-formal formats are more self-directed. They may include reading professional materials, watching documentaries, dialogues with colleagues, journaling (Evans, 2019), participating in group discussions, conducting personal research and reading, colleague observations, and peer learning. Bergmark (2023) added that non-formal or non-traditional PLD empowers teachers to be more innovative and resourceful and to take active ownership of their professional development (PD) and growth. Self-directed learning (SDL) is gaining momentum in considering notions of teacher agency for PLD from a self-determined perspective (Farrugia, 2021). Regardless of format, the goal of PLD remains the same: to improve teaching and student learning.

Common challenges to PLD

Globally, education stakeholders invest millions of dollars annually in PLD to enhance teachers' skills and qualifications (Bowe & Gore, 2017; DeMonte, 2013; OECD, 2018); however, the most significant challenge is determining the relevance and effectiveness of initiatives to effect changes in teaching and learning practices, leading to positive student outcomes. While there is some consensus on the concept, content, and format of PLD for teachers, RBE demonstrates (Kennedy, 2016, 2019; Popova et al., 2022; TNTP, 2015) its limited ability to improve teaching quality and student learning. Some previous studies have proven correlations between PLD and student achievement (see, for example, Biancarosa et al., 2010; Blank & de las Alas, 2009; Desimone, 2011) and more recently, others have not (Garrett et al., 2019; Gore et al., 2017). For example, Popova et al. (2022) found that "few PD programs were rigorously evaluated, and among those that were, the evidence of their effectiveness is mixed. With this limited and highly variable evidence, policymakers and practitioners are puzzled about how to structure teachers PLD effectively" (p. 108).

Concerning relevance, much of the research on PLD was completed in the context of high-income countries, which may or may not align with the needs of low-income countries. There appears to be some underlying overlap, such as the limited time teachers must engage in PLD while fulfilling their teaching duties, a lack of resources, and the inability of PLD workshops/sessions to address the individual needs and interests of teachers (Kennedy, 2016, 2019; Korthagen, 2017; Trabona et al., 2019). At this point, it remains unclear if these findings also apply to the context of low-income and developing countries, yet PLD approaches continue to be borrowed and implemented (Gore, 2020).

In addition, previous research (i.e., Kennedy, 2016, 2019; TNTP, 2015) demonstrated the ineffectiveness of the traditional PLD format (i.e., one-day training/lecture style sessions) and its inability to make stronger correlations to PLD for improving teacher quality, leading to student improvements. Numerous variables contributed to these challenges, including mismatched PLD to the context and needs of teachers, affecting the PLD's quality and relevance; however, few extensive research studies have been conducted. One example was TNTP (2015), which conducted a thorough two-year comprehensive study in three large school districts and one charter school network in the United States. TNTP (2015) stated,

> School systems are making a massive and laudable investment in teacher improvement–far more significant than most people realize. Yet, most teachers do not appear to improve substantially from year to year, even though many have not yet mastered critical skills. We found no evidence that any specific

format [related to traditional PLD format] or amount of professional development consistently helps teachers improve. School systems are failing to help teachers understand how to improve or even that they have room to improve (p. 2-3).

Undoubtedly, the challenges associated with PLD are complex and multifaceted, with no simple solutions. Although Nigeria is among the countries making significant annual investments in education, particularly in PLD initiatives for teachers, the persistent learning crisis raises concerns about the relevance and effectiveness of these efforts. According to the OECD (2018), the persistent learning crisis underscores a continued disconnect between the quality, relevance and impact of PLD opportunities on teacher improvement and student learning outcomes.

Potential solutions for improving PLD

Recent research by Popova et al. (2022) identified several promising themes for improving PLD, such as making PLD specific and practical, providing sustained follow-up support for teachers, and embedding it in the curriculum. More specifically, over time, an existing body of research (see, for example, see, for example, Angrist & Lavy, 2001; Bowe & Gore, 2017; Darling-Hammond et al., 2017; Wenglinsky, 2000; Wiley & Yoon, 1995) suggested that when teachers have opportunities to practice the new skills acquired during PLD, they are more likely to adopt them in their classrooms. Darling-Hammond et al. (2017) research added to this solution-focused approach, stating that when teachers were engaged with high-quality PLD focused on improving their knowledge and skills, there were noted differences in their attitudes and beliefs, influencing changes in their instruction and positively impacting student outcomes. These findings suggested that the quality of the training teachers received and the extent to which teachers were influenced impacted on changes in practice. Desimone (2009) presented a relevant conceptual framework on PLD, including four core features of "high-quality" PD: intensity, relevance, active learning, and collective participation (i.e., collaborative learning processes). While Desimone's (2009) work is dated, it comprehensively provides a direction and connection between improving teaching quality and increasing learning outcomes.

Although some proven solutions to the challenges associated with PLD exist, a more concerted effort is needed to align teachers' needs with relevant and appropriate content and format. The noted challenges with PLD and the potential solutions became the objective of this research–to collect more RBCE of PLD among a group of primary teachers working in public schools in Lagos State, Nigeria. Our objective could also be applied to any education system wanting to improve the quality and effectiveness of the PLD teachers receive to improve student learning. We began by collecting context-based (i.e., place-based) research as the basis for future research to guide solution-and-needs-based PLD to the Lagos State teachers. The research objectives included

(1) understanding the teachers' perception of PLD,

(2) identifying their PLD needs and challenges related to their job performance,

(3) determining who is responsible for meeting their PLD needs, and

(4) exploring how they think their needs could be met.

BACKGROUND

PLD Related to and in Nigeria
State-offered PLD

Many government education sectors (i.e., Canada, New Zealand, and Australia) regulate and provide PLD opportunities as the primary format for enhancing teacher quality and skills. For example, in Ontario, Canada, the provincial government created Ontario College of Teachers (OCT), the governing body to regulate the teaching profession. It also established an extensive range of PLD courses called additional qualification (OCT, 2013). The Nigerian government has a national policy on education (NPE) (Nigerian Education Research and Development Council [NERDC], 2013) known as "the national guideline for the effective administration, management and implementation of education at all tiers of government" (p. ii). The policy includes the goals and expectations of the education system. The NPE is currently in its 6th edition, stating revisions were necessitated because of global changes in education.

NPE outlines guidelines for teachers' training and continuous learning to achieve educational objectives aligned with the nation's economic growth and developmental goals (Awodiji et al., 2020). According to the NERDC (2013, p. v), "improving teacher quality through professionalizing the teacher profession in Nigeria and the provision of more in-service training opportunities and other incentives for teachers" (p. v) is a critical responsibility for all levels of the Nigerian Government–the commitment aimed to address the persistent gaps in education policy provisions and implementation. The 6th edition of the NPE marks a shift from earlier editions by focusing more on teaching philosophies, methods and pedagogies, positioning the government as the primary provider responsible for achieving these newly stated goals. To this effect, the NPE highlighted the importance of teacher education and continuous career development, recognizing "the pivotal role of quality teachers in the provision of quality education at all levels" (NERDC, 2013, p. 28).

As a result, PLD for teachers remains a key priority for the Nigerian government, with an estimated 80% of PLD opportunities designed and implemented by Lagos State (Popova et al., 2022). The government typically offers three main PLD opportunities: regular workshops, in-class observations, and seminars/conferences. Most state-sponsored PLD initiatives include essential resources such as workbooks and facilitators, including opportunities for lesson enactment and implementation of the learning from the PLD (NPE, 2013).

State-led changes in PLD initiatives

Since the introduction of the 6th edition of the NPE (2013), the Ministry of Education has taken a more structured approach to PLD, mandating the coordination, planning, financing, and oversight of all educational activities within the Lagos State. As part of these efforts, the Lagos State established a relatively new organization, the Teachers' Registration Council of Nigeria (TRCN). The goal of the TRCN was to ensure that regular PLD opportunities were available for in-service teachers (Sule, 2022). In addition to traditional PLD opportunities, Lagos State attempted to innovate and provide non-traditional PLDs. For example, in 2022, Lagos State partnered with an external agency, the Learning Scoop. They organized and sent a small group of educators to Finland for a two-week training. The purpose was to expose Nigerian teachers to the Finnish upper secondary high school system

and instructional practices and gain transferable knowledge for the Nigerian context (Learning Scoop, 2022). The outcome of these State-led innovative PLD opportunities was not documented.

A learning crisis in Nigeria

Recent initiatives and organizational reforms reflect the Nigerian government's recognition of the need for more innovative PLD opportunities and its commitment to advancing teacher development. However, critical questions remain: Why has the increase in student learning outcomes been slow despite these efforts? How can PLD be sustained as a continuous and impactful approach to improving teaching practices? The limited available research evaluating the effectiveness of these new PLD initiatives leaves a critical gap in understanding its impact on improving teaching quality and student outcomes.

Despite Lagos State's past and current efforts, Nigeria is in a learning crisis, as established by the multiple reports and studies conducted in Nigeria (see, for example, by Bold et al., 2017; United Nations Educational, Scientific and Cultural Organization [UNESCO], 2014, 2017; World Bank, 2018). These reports consistently state that addressing this crisis is imperative to improving teacher quality. Several studies (Adeniyi, 2015; Ige & Fasakin, 2014; Peter & Isaac, 2013; Yaro, 2018) focusing on Lagos State's involvement in education and the NPE (2013) have identified a multitude of problems indirectly contributing to Nigeria's learning crisis. Ezeyi et al. (2021) outlined the following related to state-led PLD:

> While Nigeria's educational policies were well-conceived, the planning often fell short, leading to implementation challenges. The resources allocated for implementing a given educational policy were frequently overestimated, fostering unrealistic expectations that remain unfulfilled. Since educational policies are typically translated into plans before implementation, it was observed that the cost of executing such plans was often underestimated. Consequently, the dearth of funds for implementing educational policies in Nigeria is a recurring issue in almost every implementation study. Moreover, the absence of reliable data in education planning in Nigeria further exacerbates the situation, underscoring the gravity of these issues (p. 148).

Briscoe et al. (2023) conducted a recent study involving 64 teachers in Lagos State, revealing that even pay-based monetary incentives did not significantly motivate teachers to engage in PLD to improve their teaching skills. Students continued poor academic performance in public schools across many states of Nigeria remains a source of concern for those within the education system (UNESCO, 2014, 2017). Challenges persist in improving teaching quality, and further investigation is essential.

Significance of context- and placed-based research-based evidence from Nigeria

We approached this exploratory research to provide more placed-based research-based evidence findings to inform future PLD practices in Nigeria. Our study's objectives were underscored with a concept that "if we are to facilitate the professional development of teachers, we must understand the process by which teachers grow professionally and the conditions that support and promote that growth" (Clarke & Hollingsworth, 2002, p. 947). Building on this understanding, the design of PLD must prioritize teachers' needs, goals, emotions, motivations, and aspirations (Korthagen, 2017). We aimed to uncover any misalignments between the PLD offered and the PLD needed to improve teaching quality from the teachers' perspective. We acknowledge that our research objectives and approach to collecting RCBS to identify misalignments of PLD outcomes could be used in any education sector. Recognizing the complexity of PLD, this exploratory research served as an initial step in a larger plan to gather RCBE to support a solution-orientated PLD that could be connected, relevant, and appropriate interventions for improving teaching quality among Nigerian teachers and to begin to diminish Nigeria's learning crisis.

METHODS

Data Collection

We used an online Google Forms survey to be inclusive, increase accessibility, and combat potential representation bias. It was emailed to 100 primary school teachers among six Nigerian school districts in Lagos State, and 87 teachers responded. Demographic information was collected, excluding any personally identifiable data. Participation was voluntary, with the teachers (participants) self-determining participation, and no incentives were offered. Ethical approval was obtained from the first author's institution. By completing the survey, participants consented and agreed to use their responses in this research.

Research Questions

The survey aligned with the study's objectives by exploring participants' beliefs, perspectives, discussions, understanding, and attitudes toward PLD. The qualitative research questions focused on:

1. The teachers' perspective on the PLD needed to be a better teacher.
2. How do their PLD needs relate to their job performance?
3. Identifying who is responsible for meeting the learning and development of public primary school teachers.
4. Soliciting their perspective about how PLD needs could be met.

Participants

The participants in this study were public school teachers from various primary grades across six school districts in Lagos State, Nigeria. The collected demographic data showed a diverse range of representations, although some limitations were exposed. We present the demographic data shared by the participants, including individual district representation, participants' age, educational qualifications, teaching experience, teachers' grade level, and subjects taught.

District representation

District One and District Two accounted for 30 participants, accounting for 70% of the sample surveyed. District Three and district Four each had seven participants, for 17% of the sample surveyed. District Five had three participants, while District Six had 10 participants, accounting for 11% of the participants. The uneven disparity in participant numbers across districts was unexpected. We could not make any predictions about this discrepancy (**Table 1**).

Table 1. District representation

District	1	2	3	4	5	6	Total
Percentage (%)	35	35	8	8	3	11	100
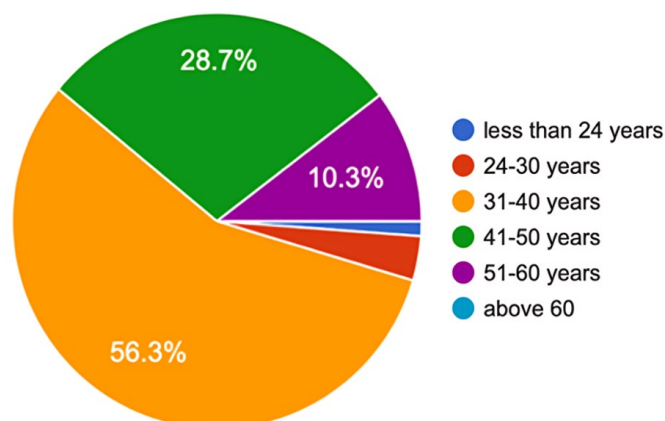
Figure 1. Educational qualifications (Source: Authors)
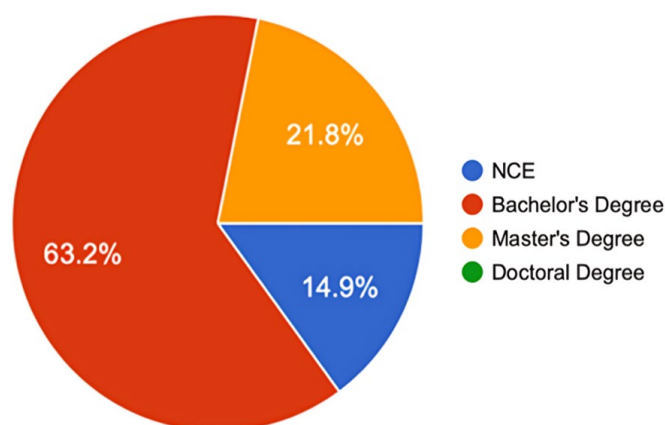
Figure 2. Teaching experience (Source: Authors)
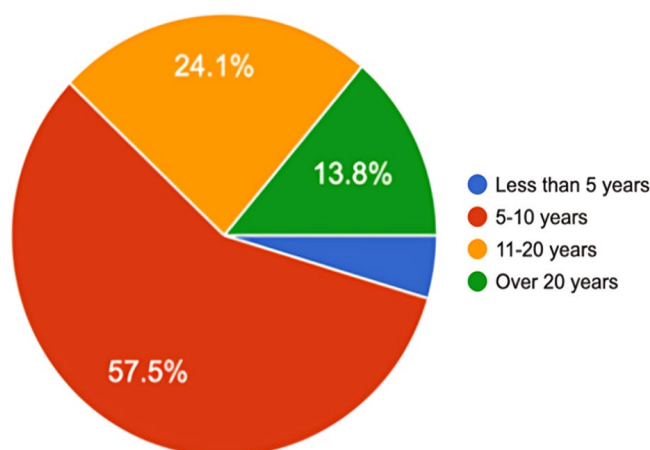
Figure 3. Teachers' grade level (Source: Authors)

Participants' ages

The participants' ages were measured with the following age brackets: less than 24 years, 24-30 years, 31-40 years, 41-50 years, 51-60 years, and above 60. Most participants (56%) were between the age group 31 and 40, followed by 29% in the 41-50 age group. Those aged

Table 2. Specific grade level of teacher participants

Grade	1	2	3	4	5	6
Percentage (%)	2	13	16	17	21	31

Table 3. Subject(s) taught by participants (e.g. grade 2 social studies)

Subject	Percentage (%) of subject-specific participants
Social studies	8
English	5
Computer studies	5
Math	8
Civil education	1
Christian religious studies	2
Basic science	6
Yoruba	1

51-60 accounted for 10%, while those aged 24-30 and less than 24 accounted for 5% of the participants (**Figure 1**).

Educational qualifications

Most participants (63%) held a bachelor's degree (63%), followed by (22%) with a master's degree. Meanwhile, 15% of the participants held a Nigerian teachers certificate of education, and none held a doctoral degree (**Figure 2**).

Teaching experience

Most participants (57.5%) had 5 to 10 years of teaching experience, followed by 24% with 11 to 20 years of experience. Additionally, 16% had over 20 years of experience, and 5% with less than five years (**Figure 3**).

Teachers' grade level

Among participants, 69% taught grades 4 to 6 (junior or elementary level) and 31% taught grades 1 to 3 (primary level). **Table 2** outlines the specific grade levels.

Subject(s) taught

Of the 87 participants, approximately half were grade-level teachers, while the remaining half taught subject-specific areas. Specifically, 52% taught all the subjects according to their grade level. For example, 11 grade 2 teachers only taught grade 2. The other participants (54%) taught specific subjects. **Table 3** outlines the subject-specific areas of these participants. The subjects included mathematics (40%), social studies (8.1%), English language (5.8%), computer studies, civil education, basic science, Christian/religion (2.4%) and Yoruba (1%). Mathematics, social studies, and English were the most frequently taught subjects.

Data Analysis

We used descriptive analysis for the demographic data collected, which was computer-generated, as presented above. The open-ended survey results were analyzed using an interpretive analysis approach, sometimes called interpretive phenomenological analysis (IPA). We chose the IPA approach because the research aimed to understand participants' perceptions and lived experiences about PLD and explore how they made meaning of these experiences (Smith & Osborn, 2003). We interpreted the participants' responses based on the meanings, values, feelings, or beliefs and how these meanings were communicated (Smith & Fieldsend, 2021). Stage one of this analysis involved an initial reading to identify content and main themes, followed by a second stage

of re-reading to tally and classify the number of similar responses, integrating them into the identified themes for overall findings (Kumar, 2014). A third stage was reading, which focused on interpreting the context of the themes and responses to each question, connecting the experiences described by participants to meaning-making associated with their experiences. The results of this analysis are presented in the findings.

Researcher Positionality and Credibility

Berger (2015) suggested that the researcher's familiarity with the research field influences all phases of the research process, including data analysis and interpretation. The first researcher/author has conducted similar research on PLD globally and has authored various publications, demonstrating competency in researching this subject area. The second author is an active member of the TRCN, the Nigerian Association for Educational Administration and Planning, and the Nigerian Institute of Management. She has a long-standing involvement with the department of teacher training and prolonged engagement and experience with the teachers in this state. The authors' combined experiences enhanced the credibility of the analysis and findings presented in this study.

Limitations of the Study

We acknowledged a few limitations to this study. First, there was limited representation from districts three, four, five and six, hindering our ability to draw substantial conclusions from these areas. However, it allowed us to narrow our research focus for phase two to districts one and two, which had higher representation. Second, while the sample size seems relatively large (n-87), it is small compared to the estimated 1,000 practicing teachers in Lagos State, Nigeria. Nevertheless, we confirmed that the number of participants and data collected were sufficient indicators to continue phase two, investigating outcomes from individual PLD opportunities based on their identified needs.

FINDINGS AND DISCUSSION

The findings and discussion were organized and presented based on the data collected from the four research questions:

(1) the PLD needed to be a better teacher;

(2) needs relating to their job performance;

(3) the responsibility for meeting the learning and development of public primary school teachers, and

(4) how their PLD could be met.

Objective #1. To Be a Better Teacher

Consistent PLD opportunities

The findings revealed that the teachers believed consistent PLD opportunities were needed to be better teachers. According to the survey results, 71% of teachers wanted more ongoing and consistent PLD, such as workshops and seminars. Many teachers echoed similar comments, such as, "Attending professional seminars or workshops is how I can broaden or update my knowledge to make me a better professional teacher." One teacher shared, "I successfully transferred my learning from a professional development setting to my classroom setting." Additionally, a small percentage (6%) of teachers stressed the importance of including on-the-job training in the PLD.

We concluded that the teachers recognized the value of ongoing learning and the significance of PLD opportunities in improving their practice. There was a consensus for more ongoing professional knowledge-building to create conducive learning environments. While participants agreed on the need for consistent PLD to support the growth of their teaching capacity, they did not address the quality or intended outcomes of these opportunities–a critical omission that warrants caution. As debated in much ongoing research about the PLD challenge of its effectiveness (Blank & de las Alas, 2009; Garrett et al., 2019; Gore et al., 2017; Kennedy, 2016, 2019; TNTP, 2015; Yoon et al., 2007), not all PLD should be considered quality PLD leading to the fundamental goal of creating changes in teaching practices to improve student outcomes. The persistent learning crisis in Nigeria is a good example of the past limitations of previous PLD for teachers, suggesting that PLD needs to extend beyond providing teachers with consistent knowledge.

Creating a conducive learning environment

Participants expressed that creating a conducive learning environment was necessary to be a better teacher. We found two sub-themes among the data:

(1) adequate training and

(2) ii) adequate resources.

Adequate training: The participants overwhelmingly expressed concern for PLD opportunities to support them in creating a conducive learning environment. More precisely, they stated that more PLD was needed and aligned with current educational advancements to keep them current in their field. For example, many teachers (34%) mentioned they want to learn more about 21st century learning skills. One teacher stated, "students need to be able to think critically and solve problems." Another commented, "PLD is needed to stay up to date to meet international standards." Another emphasized the advancement in technology impacting education, stating, "I need to learn how to embrace teaching and learning to conform with the recent artificial intelligence (AI) that has taken over the technological world." These comments represented many of the participants' beliefs, indicating their awareness of the importance of receiving adequate training to stay relevant amidst ongoing educational changes and advancements. The data also included references to technology and AI. The findings demonstrated that the teachers recognized the importance of keeping up to date with the rapid advancements and changes in education and their teaching, thus enabling teachers to teach to the demands of an ever-changing and rapidly evolving world. This emphasis on adequate training to keep pace with local and global educational advancements aligns with Nigeria's NPE (2013) 6th edition, prioritizing goals and objectives to develop an education system that prepares students to thrive in a globally competitive environment.

Adequate resources: Many participants (40%) mentioned that, as part of the PLD, additional provisions or adequate materials would support their teaching. Interestingly, and related to adequate training, the most frequent resource noted was related to digital tools and technology. Many felt that more technology resources and training were needed to support their teaching practices and stay current. One participant explained, "equipping my instructional materials with modern technologies to carry out all teaching and learning activities would mean easy access to e-instructional materials and provision of the modern classroom for eliminating the burden of writing much

paperwork." Others repeated similar comments, such as "using modern technological tools to aid teaching process and presentation, audiovisual support materials that will help students learn easily." Another participant stated, "learning to build and develop educational augmented virtual reality programs will help stimulate students' interest in learning." These comments reflect a collective recognition among participants that staying updated with technological advancements is essential for effective teaching in today's increasingly technology-driven educational environment.

The focus on resource availability suggested the importance of having the necessary tools and materials to support a conducive learning environment for effective teaching and learning. Increased accessibility could empower their teaching to create engaging learning environments for fostering progressive student learning. These new resources could support creating and implementing high-quality lessons, provide differentiated learning materials to meet individual student needs, and encourage more engagement with technology in their teaching. However, as noted in previous research (TNTP, 2015), transferring knowledge (acquired from traditional PLD) to teaching practice is a consistent challenge with PLD. As previously noted, merely offering PLD, including resource provisions, may not result in the transfer to practice. Further research should focus on monitoring the effectiveness of PLD and its knowledge transfer. Otherwise, PLD efforts, including resources, may inadvertently lead to unsuccessful attempts to improve the quality of teaching. Kennedy (2019) explained this point by stating, "we expect [traditional] PLD to solve all the problems we see" (p. 142).

Overall, the participants emphasized specific and tailored PLD to meet the evolving needs of education to keep pace with global changes and use new technology tools to improve their teaching practices. These identified specific needs are consistent with previous research (Didion et al., 2020; Kennedy, 2019; Korthagen, 2017; Lloyd & Davis, 2018; Trabona et al., 2019), emphasizing that successful PLD should match the teachers' needs and prioritize enabling teachers to continuously expand their knowledge and skills, which also leads to differences in their attitudes and beliefs, influencing changes in their instruction and positively impacting student outcomes (Darling-Hammond et al., 2017).

Objective #2. Increased Job Performance: PLD is Needed

Participants agreed that PLD increases their job performance. The responses identified two sub-themes related to their job performance:

(1) improving the quality of teaching through increased knowledge (72%) and

(2) directly influencing student outcomes (28%).

Table 4 represents the responses categorized by the two sub-themes and their respective frequencies.

Improving the quality of teaching by increasing knowledge

The teachers highlighted the role of PLD in enhancing the quality of their teaching. Among them, 35% stated that PLD improves their teaching quality, while 25% emphasized its importance in staying up to date within their areas of specialization. Those who viewed PLD to stay relevant were likely educators committed to integrating the latest advancements and practices into their teaching, ensuring they remain experts in their fields by continuously updating their knowledge.

Table 4. Relationship between teachers' PD needs and their job performance

Themes	Percentage (%)
Sub-theme: Improving the quality of teaching with more knowledge	
Ensuring quality teaching	35
Relevant and up to date in my area of specialization	25
Ascertain my mastery of the subject matter	12
Sub-theme: Directly influencing student outcomes	
Improving student achievement	10
Consciousness of my students' individual differences	9
Make teaching and learning interesting	8
Motivating my students	1

The teachers (55%) who saw PLD as a tool for ensuring quality teaching were likely educators prioritizing learning new instructional methods, effective teaching strategies, and overall continuous improvements in their teaching approaches. These teachers demonstrated a strong commitment to creating engaging, current, and tailored lessons that meet the diverse needs of their students. A smaller group of teachers (12%) stressed the importance of mastering their subject matter, indicating a dedication to achieving a deep understanding and proficiency in their teaching subjects.

Overall, these findings emphasized the connection between PLD and job performance, revealing a shared dedication among teachers to professional growth, instructional excellence, and maintaining high standards in their practice. These insights were encouraging, as they reflected the teachers' commitment to both their development and the success of their students.

Impact on students

The remaining teachers (29%) focused directly on the impact of PLD on student outcomes. Their responses included

(1) improving student achievement (10%),

(2) consciousness of my students' differences (9%),

(3) making teaching and learning interesting (8%), and

(4) motivating my students (1%).

These teachers prioritized student learning and the ability and skills needed to foster a conducive learning environment for student progress. They likely seek specific teaching strategies, differentiated instruction techniques, and personalized approaches to meet and motivate individual learners. Based on these comments, the teachers would likely be concerned with having skills and resources for creating engaging and stimulating learning experiences that capture students' interests and enthusiasm, including new innovative teaching methods, incorporating multimedia and technology resources, designing interactive activities, making lessons enjoyable and advancing student learning.

The findings indicated a need for a stronger emphasis on linking PLD knowledge and skills with improvements in teaching and learning outcomes. As noted in existing research (see, for example, Kennedy, 2019; Popova et al., 2022; TNTP, 2015), one of the most challenging aspects of PLD is determining its effectiveness in positively influencing teaching practices, leading to improved student learning. Frameworks for measuring PLD effectiveness were identified as a challenge in the literature (see, for example, Didion et al., 2020; OECD, 2018; Popova et al., 2022). Addressing this issue requires ongoing efforts to evaluate

Table 5. Stakeholder(s) responsible for meeting teachers' PLD needs

Responses	Percentage (%)
Government	63
Government and myself (teacher)	14
Myself (teacher)	10
Government and NGOs	8
Government and parents	3
Government, parents, and teachers	2
Total	100

Table 6. Meeting the teachers' PD needs

Responses	Percentage (%)
Regular training: Continuous PLD (conferences, workshops, seminars)	51
Provision of school facilities, infrastructure, and technology	16
Government attends to problems in the educational sector	14
Personal action: Being innovative, creative, and flexible	8
Increase in salary and better remuneration for teachers	7
More resources	4
Total	100

PLD initiatives with measurable impacts on improved student outcomes.

Objective #3. The Responsibility and Prospective PLD Provider

The primary public school teachers in Lagos State, Nigeria, overwhelmingly identified the government as the key entity supporting their PLD. **Table 5** presents the participants' responses and frequency.

63% of teachers believed that the government was solely responsible for their PLD, while 28% viewed the government as having a partial role. Combined, 91% of the teachers viewed the government as responsible or involved in meeting their PLD needs. This reliance on a government-led PLD likely also includes expectations that Lagos State should organize, fund training programs, provide resources, and establish policies to support ongoing professional growth and skill development for educators. This data was not surprising considering that historically, Lagos State has been the primary provider of PLD for teachers. Teachers who included a collaborative approach involving the government along with other stakeholders, such as non-governmental organizations (NGOs) (8%), parents (3%), and a combination of teachers, parents, and NGOs (2%), suggested a belief in state-shared responsibility and acknowledged the diverse range of stakeholders and resources that could contribute to their professional growth.

Consequently, an over-reliance on state-provided PLD suggested a legacy of dependence, which raises concerns for several reasons. First, this reliance undermines the concept of self-directed PLD and reinforces and perpetuates an overreliance on Lagos State to offer PLD to improve their teaching practices. Second, it overlooks the growing global virtual accessibility and availability of virtual PLD, opportunities whereby teachers no longer need to rely only on State-offered PLD. Interestingly, a small but notable group of participants (9%) considered themselves responsible for meeting their PLD needs. These teachers likely advocate for autonomy and self-reliance, actively pursuing PLD opportunities for knowledge acquisition, skill-building, and professional growth through independent efforts. This perspective reflects an emerging shift toward teacher empowerment, agency, and SDL in PD (Bergmark, 2023; Farrugia, 2021).

Objective #4. The Specific PLD for Meeting Their Needs

When participants were questioned about how their PLD needs could be met, the most frequent response (51%) was regular and continuous training, consistent with their initial comments emphasizing the need for ongoing PLD. **Table 6** presents the responses and respective frequency.

51% of teachers identified seminars, conferences, and workshops as the most effective means to address their PLD needs. While these responses aligned with previous findings emphasizing the importance of building professional knowledge, they also highlighted a reliance on traditional, one-day training sessions for their continuous PLD.

Previous research (Farrugia, 2021; TNTP, 2015) has shown that such one-day or one-off approaches to PLD were among the least effective for translating knowledge into practice, often resulting in minimal changes to teaching methods that impact student learning. This finding underscores the need for a conceptual shift toward introducing more effective, sustained PLD models, possibly with more SDL.

In addition, 16% of teachers highlighted the importance of improving school facilities, infrastructure, and technology to support their teaching practices. They suggested that better resources within schools would help their PDL and enhance the overall quality of education. Another 14% of the teachers advocated that timely government PLD interventions (i.e., throughout the school year) would directly improve their job performance. Considering the teachers' dependence on state-offered PLD, it is reasonable to infer that they expect Lagos State to be responsible for providing any changes in PLD delivery and content. A smaller percentage of teachers (8%) indicated an SDL approach. They showed they could meet their PLD needs through innovation, creativity and flexibility. These teachers reflected self-responsibility and autonomy in improving their teaching practices.

Meanwhile, 7% of teachers suggested that improved financial incentives (i.e., increased salary and better financial remuneration) would motivate them to engage more actively in PLD to become better teachers. Only four teachers believed that additional resources would ameliorate their teaching challenges. Interestingly, only a small percentage (4%) of teachers expressed that additional resources would alleviate their teaching challenges. This response contrasts with previous emphasis on the need for adequate resources. It may suggest a call for more targeted, practical resources accompanied by appropriate training rather than being provided in isolation.

Overall, the teachers' responses revealed a range of perspectives on how their PD needs could be met. They mostly suggested ongoing training, support, improved provision of context-specific teaching resources and government involvement in the educational sector.

Overview

Based on the objectives of this study and from the RCBE gathered, our findings are consistent with the previous studies outlined in this study. It was clear that the teachers conceptualized professional learning opportunities as formal, structured learning activities (i.e., state-offered PLD) with limited recognition of informal learning opportunities. Undoubtedly, the Lagos State public school teachers acknowledged and understood the importance of ongoing PLD in improving their teaching practices. It also appeared that, for the most part, they want to be better teachers and engage with ongoing, consistent PLD. The teachers strongly believed that PLD opportunities focused on current technological advancements would help them stay updated on educational changes, leading to feelings of an increased level of subject-

specific expertise and mastery of their teaching. The exact technology was not specified. Overall, they felt that PLD should be supporting them in creating a conducive learning environment with adequate training and resources to advance the quality of their teaching. However, considering their past and current PLD opportunities with the ongoing learning crisis in Nigeria, it appears that the past outcomes are consistent with other comprehensive PLD reports (see, for example, TNTP (2015), which states that, for multiple reasons, PLD practices have been ineffective in improving teaching quality. Overall, these challenges are relevant to this study's primary school teachers in Lagos State.

RECOMMENDATIONS

Based on the objectives of this study and the RCBE gathered, we concluded that changes to PLD were needed. There was a clear need for contextual and conceptual shifts in the future direction of PLD for primary public school teachers in Lagos State, Nigeria. Our recommendations were research-informed, derived from the perceptions and understandings of the Nigerian primary public school teachers in this study and insights from the noted challenges and solutions in the literature (OECD, 2018; Popova et al., 2022; TNTP, 2015). We acknowledge these recommendations could be transferred globally to any education setting. We organized the recommendations into three key areas:

1. Changes to the context of PLD opportunities
2. Conceptual shifts towards PLD
3. Additional actionable recommendations.

Key Area #1. Contextual Changes to PLD Opportunities

We identified two contextual issues from the findings: an overreliance on state-offered PLD and irrelevant or ineffective PLD formats. To address these issues, we propose the following recommendations.

Shifting the overreliance on state-offered PLD to SDL

While some teachers deviated from this viewpoint, the majority believed that Lagos State should be the primary provider of PLD and, at times, in collaboration with other stakeholders. This dependence on State-provided PLD, primarily through workshops and seminars supplemented with resources, raised concerns. Such reliance limits teachers' opportunities for self-directed professional learning, undermines their self-efficacy, and restricts their ability to improve teaching quality independently.

Moreover, this dependence perpetuates the misconception that the availability of PLD is more important than its quality or relevance to teaching outcomes. Teachers' reliance on external stakeholders to deliver PLD has likely stunted the development of proactive SDL habits and minimized the potential for continuous improvement through personal initiative. To address this, we recommend a shift toward fostering teacher autonomy in professional learning. By encouraging self-directed approaches, teachers can take greater responsibility for their development, accessing diverse PLD opportunities beyond what the Lagos State offers. Lagos State can support the SDL through a mentorship program.

Introducing different and more innovative forms of PLD

Most participants preferred traditional formats of PLD, such as seminars and workshops. This preference may reflect their limited exposure to or lack of familiarity with alternative, self-directed PLD methods. The reliance on these traditional formats aligns with the broader overdependence on State-provided PLD. However, research consistently demonstrated that traditional, one-off formats like workshops and seminars are among the least effective in fostering meaningful improvements in teaching quality and student outcomes (Kennedy, 2019; TNTP, 2015). To address this issue, we recommend introducing innovative PLD approaches that empower teachers and align with best practices. Introducing different and more innovative forms of PLD, such as the Teacher Scoop initiative, coupled with performance tracking and measurements of PLD effectiveness (Beeharry, 2021), could simultaneously target contextual and conceptual shifts in PLD.

Consequently, given the ongoing debate on the essential components of PLD that positively impact student outcomes (Blank & de las Alas, 2009; Kennedy, 2019; Yoon et al., 2007), implementing performance measurements would be advantageous. We advocated adopting Desimone's (2009) PLD conceptual framework, which suggests four core features of high-quality PLD:

1. Intensity: Sustained and substantial PLD experiences.
2. Relevance: Content directly aligned with teachers' instructional needs.
3. Active learning: Opportunities for hands-on practice and application.
4. Collective participation: Collaborative learning processes among educators.

This framework offers a robust foundation for designing effective and sustainable PLD programs, enabling teachers in Lagos State to move beyond traditional formats to SDL and engage in transformative professional growth.

Key Area #2. Conceptual Changes Towards PLD

In addition to the contextual changes discussed, we identified the need for a conceptual shift in how teachers approach PLD. Based on the teachers' responses, there was a noticeable absence of informal or self-directed PLD, with a predominant reliance on formal, state-provided PLD in traditional formats. We strongly recommend a conceptual shift in PLD that encourages PLD with a more SDL approach. A more self-directed approach would empower educators to seek and engage in diverse learning opportunities tailored to their specific needs and teaching contexts.

Consistent in Nigeria's NPE (2013) was a dual focus on improving teaching quality and significantly increasing student learning outcomes. The latter focus was limited in the teachers' responses. Consistent with Karacabey et al. (2022), we argued that teachers can be innovative and resourceful by positioning themselves to be active agents of their PLD. The encouraging aspect is that this conceptual shift could happen with minimal funding and modest contextual changes. For example, in the Nigerian context, available and simplified technologies, such as WhatsApp, could be leveraged to create professional learning groups, support self-directed studies, share resources, and facilitate collaboration. With the explosion of social media and the widespread

availability of modern technology, such as cell phones, numerous opportunities for PLD and collaboration have emerged.

Key Area #3. Additional Actionable Recommendations

We proposed the following actionable recommendations to address the challenges in this study. We reiterated that a conceptual and contextual shift in PLD's approach, expectations, and outcomes is fundamental for implementing these recommendations successfully. We advocated for teachers to transition toward more self-directed PLD focused on developing their self-efficacy and the ability to improve the quality of their teaching to benefit increased student learning. Although these actionable recommendations are not inclusive, considering Lagos State's and the teachers' financial restraints in Lagos State, Nigeria, we thought these recommendations the most cost-effective.

Promoting a conceptual change in self-efficacy

Introduce specific and active PLD initiatives to empower teachers to engage in self-directed PLD, such as action research and teacher-collaborative professional learning communities. These initiatives can be conducted in-school or virtually to accommodate various districts and address the teachers' specific subject needs and interests. Tailoring PLD content ensures relevance and fosters teacher engagement, promoting sustainable professional growth.

Expanding virtual PLD opportunities

Leveraging virtual platforms to broaden the scope of PLD delivery, ensuring intensity, relevance, and collaborative participation, as outlined in Desimone's (2009) PLD framework. Virtual PLD enables year-round learning experiences rather than isolated one-day events and supports long-term goals to measure changes in teaching practices and student learning outcomes. Examples of virtual PLD include online courses facilitated by teachers, study groups, team meetings, mentorship programs, virtual classroom observations, and courses focused on subject-specific knowledge and mastery. These approaches align with the needs of teachers seeking targeted improvements in their teaching practices.

Adding performance monitoring to PLD

Incorporating performance monitoring to evaluate the effectiveness of PLD initiatives. As Beeharry (2021) emphasized, performance monitoring identifies the most impactful and relevant PLD approaches, bridging the gap between knowledge acquisition and practical application. This focus addresses Nigeria's learning crisis by emphasizing outcomes-driven PD. Additionally, as the OECD (2018) recommended, conceptualizing PLD to foster a school-wide learning environment enhances collective professional growth and strengthens the link between teacher development and improved student outcomes.

By implementing these three actionable recommendations, teachers and policymakers can create a more effective, resource-efficient, and outcome-driven PLD system that benefits educators and students alike.

CONCLUSION

A deeper understanding of teachers' perceived needs and preferences is important for designing specific PLD opportunities for increased teaching quality, leading to student improvement in any educational setting. Similar to many implementations of various PLD initiatives, there is evidence in this study of the limited effectiveness in enhancing teaching quality. The RCBE of this exploratory study conducted among public school teachers in Lagos State, Nigeria, effectively identified areas of concern and potential future directions for PLD opportunities calling for a shift to innovative and alternative PLD solutions to better support teachers in fostering student learning. We encourage all educators, policymakers, and researchers to adopt, test, monitor and evaluate the effectiveness of any PLD for improving student learning outcomes. We advocate for a shift toward SD-PLD for teachers, aligning with Gore's (2020) assertion that teachers can be both the problem and the solution. Empowering teachers to take ownership of their PD can foster a culture of continuous improvement and innovation in education.

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