Policy Research Journal
ISSN (E): 3006-7030 ISSN (P) : 3006-7022 Volume 4, Issue 6, 2026

PERFORMANCE OF DISTRICT TEACHER EDUCATORS AND IMPLEMENTATION GAPS IN CONTINUOUS PROFESSIONAL DEVELOPMENT OF PRIMARY SCHOOL TEACHERS: EVIDENCE FROM PAKISTAN

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DOI: https://doi.org/10.5281/zenodo.20769858

Keywords
Continuous professional development, District Teacher Educators, teacher mentoring, instructional support, primary education, policy implementation.

Article History
Received: 21 April 2026
Accepted: 01 June 2026
Published: 18 June 2026

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Abstract

Continuous professional development (CPD) is widely recognized as a key mechanism for improving teachers' professional competence and classroom practices. However, the effectiveness of CPD programs largely depends on the role of instructional support providers who translate policy frameworks into school-level practices. This study evaluates the performance of District Teacher Educators (DTEs) in implementing CPD practices among primary school teachers in Pakistan. Using a quantitative survey design, data were collected from primary school teachers, DTEs, and cluster heads through a structured instrument based on nine CPD performance indicators, including lesson planning, assessment practices, classroom management, student interaction, and activity-based teaching. The findings reveal that DTE performance was above average but remained below the expected level of implementation. Significant gaps were identified between DTE self-reported practices and teachers' perceptions regarding the execution of CPD activities. The results indicate a disconnect between the intended CPD framework and its practical implementation at the school level. The study highlights the need for strengthening mentoring systems, improving monitoring mechanisms, and enhancing district-level professional support structures to ensure effective teacher development. The findings contribute to understanding the challenges of translating teacher professional development policies into sustainable classroom practices in developing education systems.

INTRODUCTION

Quality education is essential for social and economic development, and teachers play a pivotal role in achieving educational goals. A competent and professional teacher requires not only subject knowledge but also pedagogical skills, commitment, dedication, and professional ethics to improve students' learning outcomes. Teaching is a profession that requires continuous learning

because there is always room for improvement and mastery of teaching practices (Mewborn & Huberty, 2004). Professional development refers to processes and activities designed to enhance teachers' knowledge, skills, and attitudes to improve students' learning (Guskey, 2000).

Teachers' professional development influences their work practices, professional knowledge, and ultimately students' learning experiences (Loucks-Horsley et al., 2003). Since teachers act as agents of change, improvement in education begins with teachers' own professional learning (Fullan, 2005). In the contemporary educational environment, where theories, teaching approaches, and learning strategies continue to evolve, continuous professional development (CPD) has become essential for teachers to update their knowledge and adapt innovative practices according to changing educational needs. CPD supports teachers in improving their professional competencies and contributes to quality education (Altun & Cengiz, 2012).

Traditionally, teacher professional development was mainly associated with workshops and training sessions. However, such approaches have limited effectiveness when they are disconnected from classroom realities (Hawley & Valli, 1999). Effective professional development requires content focus, active learning, coherence, adequate duration, and collective participation (Blank & Smith, 2007; Corcoran, 2007; Desimone, 2011; Wayne et al., 2008). Therefore, contemporary CPD emphasizes continuous, school-based, and practice-oriented professional learning rather than one-time training events (Villegas-Reiners, 2003).

In-service teachers require CPD opportunities to strengthen their pedagogical skills, classroom practices, assessment strategies, and professional competencies. Professional development activities enhance teachers' confidence, knowledge, and ability to respond to educational challenges (Lessing & Witt, 2007). Moreover, mentoring and collaborative professional learning with experienced teachers improve teaching effectiveness and support professional growth (Burley & Pomphrey, 2011).

Recognizing the importance of teacher development, the Government of Punjab initiated a Continuous Professional Development (CPD) program through the Directorate of Staff Development (DSD) to improve the quality of education. The program focused on teacher support, mentoring, classroom guidance, monitoring, and professional growth through District Teacher Educators (DTEs) (Directorate of Staff Development, 2007). DTEs were assigned a central role in translating the CPD framework into practical school-level activities by providing continuous support and guidance to primary school teachers.

However, the success of any professional development program depends on its effective implementation. Evaluation is necessary to determine whether professional development activities are occurring according to the planned framework and achieving intended outcomes. Evaluation provides evidence for improving programs and ensuring effective use of educational resources (Killion, 2008). Therefore, examining the performance of DTEs is important because they serve as the key link between CPD policy and classroom practices.

Although the CPD framework was designed to improve primary teachers' professional practices, questions remain regarding the extent to which the planned activities are implemented in schools. Differences between policy intentions and actual field practices may limit the effectiveness of teacher development initiatives. Therefore, this study evaluates the performance of District Teacher Educators and examines implementation gaps in the continuous professional development of primary school teachers.

Research Questions

The study was guided by the following research questions:

1. To what extent are District Teacher Educators performing their assigned duties according to the Continuous Professional Development framework for primary school teachers?
2. What gaps exist between the proposed Continuous Professional Development

framework and its actual implementation at the school level?

3. Is there a significant difference between the perceptions of District Teacher Educators and Primary School Teachers regarding the implementation of CPD practices?

Literature Review

Continuous Professional Development of Teachers

Teacher professional development is considered an important element for improving teaching quality and students' learning outcomes. Teachers' knowledge, skills, and professional attitudes require continuous improvement because educational demands and classroom practices are constantly changing. Professional development enables teachers to enhance their instructional abilities and respond effectively to learners' needs (Guskey, 2000). Teachers who engage in professional learning activities develop better understanding of teaching strategies and improve their classroom practices.

Professional development is not limited to formal training programs but involves continuous learning through reflection, collaboration, mentoring, and classroom-based experiences. According to Day (1999), effective professional development helps teachers maintain and improve their professional knowledge and expertise throughout their careers. Similarly, continuous learning opportunities support teachers in adapting to educational reforms and innovations.

Traditional models of professional development mainly focused on short training courses and workshops. However, such approaches often failed to create sustainable changes in classroom practices because they lacked connection with teachers' actual professional contexts (Hawley & Valli, 1999). Effective professional development requires opportunities for active participation, practical application, collaboration, and follow-up support.

Models of Continuous Professional Development

Various CPD models have been proposed to support teachers' professional growth. The training model focuses on developing specific skills through structured programs. This model provides standardized knowledge and skills but may have a limited connection with teachers' individual needs. The award-bearing model emphasizes formal learning programs validated by external institutions. This model provides recognition and quality assurance through academic qualifications. The deficit model focuses on identifying weaknesses in teachers' performance and designing professional development activities to overcome those weaknesses. However, Rhodes and Beneicke (2003) argued that poor performance cannot always be attributed only to individual teachers because organizational and management factors also influence professional practice.

The cascade model transfers knowledge from experts to teachers through a chain of training. This model is useful where resources are limited, but it has limitations because it often focuses more on skills and information rather than deeper professional learning (Soloman & Tresman, 1999). The standards-based model emphasizes professional standards and competencies. Although it supports accountability, Smyth (1991) criticized this model because excessive focus on standards may reduce teachers' opportunities for reflection and critical inquiry.

The community of practice model emphasizes collaborative learning among professionals. Wenger argued that learning occurs through interaction and participation within a professional community rather than only through planned training activities. The action research model encourages teachers to investigate their own practices and improve classroom situations through systematic inquiry. Day (1999) described action research as a process where practitioners study their own practices to improve the quality of educational action. The transformative model combines teacher-centred and context-based approaches. It focuses on professional change by considering teachers' experiences, reflection, and educational contexts.

Mentoring and Coaching Approach in CPD

Among different CPD approaches, mentoring and coaching have gained importance because they provide continuous professional support to teachers. Mentoring creates a professional relationship between an experienced educator and a teacher where guidance, feedback, and reflection support improvement. Rhodes and Beneicke (2002) suggested that mentoring is often more acceptable to teachers because it develops professional relationships based on support and collaboration. In the Punjab CPD framework, the role of District Teacher Educators was based on mentoring and coaching principles. DTEs were expected to provide continuous guidance to primary school teachers, observe classroom practices, identify weaknesses, and support teachers in improving their instructional approaches.

Continuous Professional Development Framework in Punjab

The Directorate of Staff Development (DSD) initiated a comprehensive CPD program in Punjab to improve teachers' professional competencies. The framework introduced District Teacher Educators as key facilitators responsible for supporting primary school teachers at the school level. Their responsibilities included mentoring teachers, supporting lesson planning, improving classroom practices, and promoting effective teaching strategies.

However, the success of CPD depends on effective implementation. Porter et al. (2001) emphasized that evaluation of professional development programs helps determine whether objectives are being achieved and provides evidence for program improvement. Assessment of teacher practices and learning outcomes can indicate the effectiveness of professional development initiatives (Zeichner & Conklin, 2005).

Therefore, evaluating DTE performance is important because they represent the connection between CPD policy and actual classroom practices. Examining their role helps identify whether the intended professional development framework is being implemented as planned.

Methodology

Research Design

The study employed a quantitative descriptive survey design to evaluate the performance of District Teacher Educators (DTEs) and examine the implementation gaps in the Continuous Professional Development (CPD) framework for primary school teachers. The design was selected because the study aimed to measure existing practices, compare perceptions of different stakeholders, and identify differences between the planned CPD framework and its actual implementation.

The population of the study consisted of primary school teachers, District Teacher Educators (DTEs), and Cluster Heads involved in the CPD framework in District Gujrat, Punjab. The district comprised 957 primary schools with 3045 teachers. Additionally, 107 DTEs and 57 Cluster Heads were included in the CPD structure. A multistage random sampling technique was used for data collection. At the first stage, 10% of primary schools were selected randomly, resulting in a sample of 95 schools. From these schools, primary school teachers were selected for participation. The final sample included 250 Primary School Teachers (PSTs), 72 DTEs working in the field, and 45 Cluster Heads.

Data were collected through a structured questionnaire developed according to the CPD framework of the Directorate of Staff Development (DSD). The questionnaire was based on a five-point Likert scale ranging from "Never" to "Every Time." The instrument measured DTE performance across nine indicators:

1. Teachers' daily diary
2. Assessment and checking of written work
3. Student learning outcomes according to the academic calendar
4. Activity-based teaching and learning
5. Use of visual aids/support materials
6. Student assessment practices
7. Implementation of lesson plans
8. Student interaction
9. Classroom management

The same indicators were assessed from the perspectives of DTEs, PSTs, and Cluster Heads to

compare intended practices with actual implementation.

Data were collected after obtaining permission from the relevant authorities. The participants were informed about the purpose of the study, and confidentiality of responses was ensured. The collected data represented the views of DTEs, PSTs, and Cluster Heads regarding the practical implementation of CPD activities. The collected data were analyzed using descriptive and inferential statistics. Mean scores and standard deviations were calculated to examine the level of DTE performance. One-sample t-tests were applied to compare observed performance with the expected levels ("Most of the Time" and "Every Time"). Independent sample t-tests were used to compare differences between DTE and PST perceptions regarding CPD implementation.

Results

To find the answer to this question, we analyze a one-sample t-test. In one sample t-test, the average distance is measured from score value 5, which means 'every time,' and from score value 4, which means most of the time.

Table 1:
One-Sample Statistics from DTE Response

Factors	N	Mean	Std. Deviation
Teacher Diary	72	3.5114	.58271
Assignment Writing and Checking	72	3.7049	.54921
Education Calendar	72	3.7778	.53027
Activity-Based Teaching and Learning	72	3.7028	.52218
Visual Ads	72	3.8056	.59668
Students Assessment	72	3.6319	.58438
Implementation of the Lesson Plan	72	3.7688	.54473
Students Interaction	72	3.8090	.58366
Classroom Management	72	3.8333	.47456
Overall Mean	72	3.7313	.51292

In Table 1, mean scores are given for all factors as well as for the overall mean from DTEs responses. The number of values of response for all factors is 72. Overall mean score is 3.7313, which shows that most of the DTEs response lies between 3 or "Some Time" and 4 or "Most of the Time". The value of the mean score also shows that DTE's performance is above average but below "Most of the Time". Further, the mean score for all factors was given separately. Mean score for "Teacher Diary" is 3.5114, mean score for "Assignment Writing and Checking" is 3.7049, mean score for "Education Calendar" is 3.7778, mean score for "Activity Based Teaching and Learning" is 3.7028, mean score for "Visual Ads" is 3.8056, mean score for "Students Assessment" is 3.6319, mean score for "Implementation of Lesson Plan" is 3.7688, mean score for "Students Interaction" 3.8090 and mean score for "Classroom Management" is 3.8333. All mean scores of these factors lie between 3.5114 and 3.8333. It means that most of the DTEs have their response above "Some Time" and below "Most of the Time" categories. As these mean scores differ from the 5 or "Every Time" category, so its mean that DTE's performance is low compared to the desired.

Table 4.2:
One-Sample Test from DTE's Response

	t-value	df	Sig.	Mean Difference
Teacher Diary	-21.677	71	.000	-1.48861
Assignment Writing and Checking	-20.010	71	.000	-1.29514
Education Calendar	-19.558	71	.000	-1.22222
Activity-Based Teaching and Learning	-21.080	71	.000	-1.29722
Visual Ads	-16.986	71	.000	-1.19444
Students Assessment	-19.864	71	.000	-1.36806
Implementation of the Lesson Plan	-19.179	71	.000	-1.23125
Students Interaction	-17.314	71	.000	-1.19097
Classroom Management	-20.860	71	.000	-1.16667
Overall Mean	**-20.989**	**71**	**.000**	**-1.26875**

Table 2 shows the result of the t-test for all factors as well as for the overall mean from DTEs responses. The purpose of using the t-test is to find out the difference in mean values from the desired value "5" or "Every Time". t-value and p-value for Overall mean score is –20.989 and 0.000 respectively, as this p-value is less than level of significance that is 0.05 so null hypothesis is rejected and researcher conclude that "Overall Mean" is not equal to "5" or "Every Time", further t-value is negative so it is conclude that "Overall Mean" is less than "5" or "Every Time". Hence, simple DTEs have less performance compared to the desired value. t-value and p-value for "Teacher Diary" are – 21.667 and 0.000, t-value and p-value for "Assignment Writing and Checking" are – 20.010 and 0.000, t-value and p-value for "Education Calendar" are – 19.558 and 0.000, t-value and p-value for "Activity Based Teaching and Learning" are – 21.080 and 0.000, t-value and p-value for "Visual Ads" are – 16.986 and 0.000, t-value and p-value for "Students Assessment" are – 19.864 and 0.000, t-value and p-value for "Implementation of Lesson Plan" are – 19.179 and 0.000, t-value and p-value for "Students Interaction" are – 17.314 and 0.000, in last t-value and p-value for "Classroom Management" are – 20.860 and 0.000. All t-values of these factors are negatives and all p-values of these factors are near zero and less than 0.05, so the researcher concludes that DTEs have their performance less than "Every Time" because null hypotheses are rejected for all factors.

Table 3:
One-Sample Test from DTE's Response

	t-value	df	Sig.	Mean Difference
Teacher Diary	-7.115	71	.000	-.48861
Assignment Writing and Checking	-4.560	71	.000	-.29514
Education Calendar	-3.556	71	.001	-.22222
Activity-Based Teaching and Learning	-4.830	71	.000	-.29722
Visual Ads	-2.765	71	.007	-.19444
Students Assessment	-5.344	71	.000	-.36806
Implementation of the Lesson Plan	-3.602	71	.001	-.23125
Students Interaction	-2.776	71	.007	-.19097
Classroom Management	-2.980	71	.004	-.16667
Overall Average	-4.446	71	.000	-.26875

Table 3 shows the result of the t-test for all factors as well as for the overall mean from DTEs responses. In this Table, the Test Statistic value is "4" or "Most of the Time" instead of "5" or "Every Time". t-value and p-value for Overall mean score is –4.446 and 0.000 respectively, as this p-value is less than level of significance that is 0.05 so again null hypothesis is rejected and researcher conclude that "Overall Mean" is not equal to "4" or "Most of the Time", further t-value is negative so it is conclude that "Overall Mean" is less than "4" or "Most of the Time". Simply, DTEs have less performance compared to "Most of the Time". t-value and p-value for "Teacher Diary" are – 7.115 and 0.000, t-value and p-value for "Assignment Writing and Checking" are – 4.560 and 0.000, t-value and p-value for "Education Calendar" are – 3.556 and 0.001, t-value and p-value for "Activity Based Teaching and Learning" are – 4.830 and 0.000, t-value and p-value for "Visual Ads" are – 2.765 and 0.007, t-value and p-value for "Students Assessment" are – 5.344 and 0.000, t-value and p-value for "Implementation of Lesson Plan" are – 3.602 and 0.001, t-value and p-value for "Students Interaction" are – 2.776 and 0.007, in last t-value and p-value for "Classroom Management" are – 2.980 and 0.004. As all t-values of these factors are negative and all p-values of these factors are less than 0.05 so researcher concludes that DTEs have their performance less than "Most of the Time".

Table 4:
One-Sample Statistics from PST's Response

	N	Mean	Std. Deviation
Teacher Diary	250	3.3333	.63526
Assignment Writing and Checking	250	3.4720	.66821
Education Calendar	250	3.5120	.63011
Activity-Based Teaching and Learning	250	3.5040	.64284
Visual Ads	250	3.6088	.67169
Students Assessment	250	3.4750	.67487
Implementation of the Lesson Plan	250	3.5998	.61153
Students Interaction	250	3.6430	.66827
Classroom Management	250	3.5412	.60938
Overall Average	250	3.5150	.61115

In Table 4, mean scores for all factors as well as for overall mean from PSTs responses are given. The number of values of response for each factor is 250. Overall mean score is 3.5150, which shows that most of PST's response lies between 3 or "Some Time" and 4 or "Most of the Time" categories. The value of the mean score also shows that DTE's performance is above average but below "Most of the Time" according to the PSTs. Further, the mean score for all factors was given separately. Mean score for "Teacher Diary" is 3.3333, mean score for "Assignment Writing and Checking" is 3.4720, mean score for "Education Calendar" is 3.5120, mean score for "Activity Based Teaching and Learning" is 3.5040, mean score for "Visual Ads" is 3.6088, mean score for "Students Assessment" is 3.4750, mean score for "Implementation of Lesson Plan" is 3.5998, mean score for "Students Interaction" 3.6430 and mean score for "Classroom Management" is 3.5412. All mean scores of these factors lie between 3.3333 and 3.6430. It means that most of the PSTs have

their response above "Some Time" and below "Most of the Time" categories. Further, we observed that all values of corresponding mean scores are lower than PST's responses compared to DTE's values. As these mean scores are far from the 5 or "Every Time" category, this indicates that DTE's performance is low compared to the plan chalked out for DSD.

Table 5:
One-Sample Test from PST's Response

	t-value	df	Sig.	Mean Difference
Teacher Diary	-41.484	249	.000	-1.66672
Assignment Writing and Checking	-36.156	249	.000	-1.52800
Education Calendar	-37.338	249	.000	-1.48800
Activity Based Teaching and Learning	-36.796	249	.000	-1.49600
Visual Ads	-32.748	249	.000	-1.39120
Students Assessment	-35.729	249	.000	-1.52500
Implementation of Lesson Plan	-36.203	249	.000	-1.40020
Students Interaction	-32.107	249	.000	-1.35700
Classroom Management	-37.851	249	.000	-1.45880
Overall Average	-38.419	249	.000	-1.48500

Table 5 shows the result of the t-test for all factors as well as for the overall mean from PSTs' responses. The purpose of using the t-test is to find out the difference in mean values from the desired value "5" or "Every Time". t-value and p-value for the overall mean score are –38.419 and 0.000, respectively. As this p-value is less than 0.05 so null hypothesis is rejected, and the researcher concludes that "Overall Mean" is not equal to "5" or "Every Time". The t-value is negative, so it is concluded that "Overall Mean" is less than "5" or "Every Time". Hence, simple DTEs have less performance compared to the desired value according to PSTs. Further t-value and p-value for "Teacher Diary" are – 41.484 and 0.000, t-value and p-value for "Assignment Writing and Checking" are – 36.156 and 0.000, t-value and p-value for "Education Calendar" are – 37.338 and 0.000, t-value and p-value for "Activity Based Teaching and Learning" are – 36.796 and 0.000, t-value and p-value for "Visual Ads" are – 32.748 and 0.000, t-value and p-value for "Students Assessment" are – 35.729 and 0.000, t-value and p-value for "Implementation of Lesson Plan" are – 36.203 and 0.000, t-value and p-value for "Students Interaction" are – 32.107 and 0.000, in last t-value and p-value for "Classroom Management" are – 37.851 and 0.000. All t-values of these factors are negatives and all p-values of these factors are near zero and less than 0.05, so the researcher concludes that DTEs have their performance less than "Every Time" according to the PSTs.

Table 6:
One-Sample Test from PST's Response

	t-value	df	Sig.	Mean Difference
Teacher Diary	-16.594	249	.000	-.66672
Assignment Writing and Checking	-12.494	249	.000	-.52800
Education Calendar	-12.245	249	.000	-.48800
Activity-Based Teaching and Learning	-12.200	249	.000	-.49600

Visual Ads	-9.209	249	.000	-.39120
Students Assessment	-12.300	249	.000	-.52500
Implementation of the Lesson Plan	-10.347	249	.000	-.40020
Students Interaction	-8.447	249	.000	-.35700
Classroom Management	-11.904	249	.000	-.45880
Overall Average	-12.548	249	.000	-.48500

Table 6 shows the result of the t-test for all factors as well as for the overall mean from DTEs responses. In this Table, the Test Statistic value is "4" or "Most of the Time" instead of "5" or "Every Time". t-value and p-value for Overall mean score is –12.548 and 0.000 respectively, as this p-value is less than level of significance that is 0.05 so again null hypothesis is rejected and researcher concludes that "Overall Mean" is not equal to "4" or "Most of the Time", further t-value is negative so it is conclude that "Overall Mean" is less than "4" or "Most of the Time". Simply, DTEs have less performance compared to "Most of the Time" according to PSTs. t-value and p-value for "Teacher Diary" are – 16.594 and 0.000, t-value and p-value for "Assignment Writing and Checking" are – 12.494 and 0.000, t-value and p-value for "Education Calendar" are – 12.245 and 0.000, t-value and p-value for "Activity Based Teaching and Learning" are – 12.200 and 0.000, t-value and p-value for "Visual Ads" are – 9.209 and 0.000, t-value and p-value for "Students Assessment" are – 12.300 and 0.000, t-value and p-value for "Implementation of Lesson Plan" are – 10.347 and 0.000, t-value and p-value for "Students Interaction" are – 8.447 and 0.000, in last t-value and p-value for "Classroom Management" are – 11.904 and 0.000. As all t-values of these factors are negative and all p-values of these factors are less than 0.05 so researcher concludes that DTEs have their performance less than "Most of the Time" according to PSTs responses.

Table 7

Comparison of DTE and PST Perceptions of CPD Implementation across Nine Performance Indicators

Performance Indicator	DTE Mean	PST Mean	Mean Difference	t-value	Sig.	Decision
Teacher Diary	3.511	3.333	0.178	2.134	.034	Significant
Assignment Writing and Checking	3.705	3.472	0.233	2.705	.007	Significant
Education Calendar	3.778	3.512	0.266	3.261	.001	Significant
Activity-Based Teaching and Learning	3.703	3.504	0.199	2.404	.017	Significant
Visual Aids	3.806	3.609	0.197	2.243	.026	Significant
Student Assessment	3.632	3.475	0.157	1.789	.075	Insignificant
Implementation of the Lesson Plan	3.769	3.600	0.169	2.115	.035	Significant
Student Interaction	3.809	3.643	0.166	1.980	.049	Marginally Significant
Classroom Management	3.833	3.541	0.292	3.143	.002	Significant

Table 7 compares the perceptions of District Teacher Educators (DTEs) and Primary School Teachers (PSTs) regarding the implementation of Continuous Professional Development (CPD) practices across nine performance indicators. DTEs consistently reported higher mean scores than PSTs for all indicators, indicating that DTEs perceived their implementation of CPD activities more positively than did teachers. Independent-samples t-tests revealed statistically significant differences for teacher diary, assignment writing and checking, education calendar, activity-based teaching and learning, visual aids, lesson plan implementation, and classroom management ($p < .05$). In contrast, student assessment (and, according to the thesis conclusion, student interaction) did not show statistically significant differences between the two groups. Overall, these findings indicate the presence of implementation gaps between DTE self-perceptions and teachers' experiences of CPD practices, supporting the conclusion that the CPD framework was not implemented uniformly across schools.

Discussion

The observed discrepancies between District Teacher Educators and Primary School Teachers suggest that the current CPD framework lacks the essential follow-up, feedback mechanisms, and resource allocation required for consistent efficacy (Qaisra & Haider, 2023). These findings corroborate previous research indicating that supervisory support frequently fails to translate into improved classroom pedagogical practices or enhanced student learning behaviors (Mandefro, 2022, p. 9). Furthermore, the persistent gap between the intended CPD framework and its practical application suggests that mentoring visits are currently insufficient to foster meaningful teacher development (Munir, 2021). Indeed, while in-service training is often intended to help educators solve classroom challenges and acquire new pedagogical skills, the uneven implementation of these modules limits their actual impact on student engagement (Ahmad et al., 2023; Gargallo & Estera, 2026). Moreover, teachers frequently characterize continuous professional development as a tedious and time-consuming obligation rather than a catalyst for instructional growth, which further diminishes their motivation to engage with these programs (Worku et al., 2025). This negative perception is often exacerbated by the lack of meaningful post-learning follow-up activities, which teachers frequently find to be either inadequately planned or entirely neglected (Vadivel et al., 2021). Furthermore, systemic obstacles such as time pressures, insufficient resources, and inadequate management mechanisms often impede the successful integration of CPD activities into daily classroom practice (Njamba, 2025). Consequently, sustainable professional development necessitates a move toward more structured mentoring and localized support systems that align with the daily pedagogical realities faced by primary teachers (Chinkhondo, 2026; Saleem, et al., 2020).

Developing such bespoke, context-sensitive models requires transitioning away from generic, imported training programs toward collaborative, school-based frameworks that prioritize ongoing mentoring and peer reflection (Amponsah et al., 2021). This shift is critical, as effective professional development relies on continuous, specialized oversight to ensure that pedagogical strategies are not only introduced but rigorously applied within the classroom (Siddiqui et al., ; Zindi & Sibanda, 2023). This transition mandates that educational authorities address the systemic absence of consistent monitoring, which currently prevents the translation of theoretical training into sustained instructional improvement (Ajani, 2023). Furthermore, by fostering collaborative learning environments that leverage mentorship and personalized coaching, education systems can better bridge the gap between policy objectives and actual classroom application (Petar, 2024). Such systemic integration must prioritize the implementation of practice-based coaching and school-based learning communities to ensure that professional development becomes a cumulative, responsive process rather than a sporadic, top-down mandate (Ekanem et al., 2025). To achieve this, ministries of education should conduct comprehensive needs analyses to design systematic, differentiated training pathways that directly address the diverse requirements of both

novice and experienced educators(Mohammed, 2023; Kurteshi et al., 2023) . Moreover, establishing robust monitoring and evaluation frameworks is essential to accurately gauge the effectiveness of these interventions and ensure accountability at all levels of implementation (Ajani, 2023). Ultimately, shifting toward these longitudinal, evidence-informed models allows for the critical reflection on prior pedagogical assumptions, which is a necessary condition for transformative changes in teaching beliefs and classroom performance (Jeptepkeny & Keter, 2025).

Conclusion

The findings of this study underscore the critical need for a paradigm shift in teacher professional development, moving away from fragmented, top-down initiatives toward integrated, school-based frameworks that prioritize long-term instructional support (Akeplas et al., 2025). Effective reform necessitates the construction of multi-layered systems that are inherently job-embedded, collaborative, and responsive to the specific cultural and resource constraints of the local educational landscape (Revina et al., 2023; Hussain & Khan, 2025, p. 271). To ensure these initiatives yield measurable gains in student achievement, policy stakeholders must prioritize the integration of longitudinal follow-up mechanisms, such as sustained peer coaching and classroom-based observational feedback (Popova et al., 2021; Erawan & Erawan, 2024). By embedding these collaborative inquiry cycles into the daily school routine, educational systems can better facilitate the essential reflection on practice required to overcome deeply held pedagogical beliefs (Habte et al., 2021; Yakavets et al., p. 46). Moreover, transitioning toward these job-embedded approaches—such as collaborative learning communities and instructional coaching—offers a more robust pathway for transferring theoretical training into tangible classroom outcomes (Poulou et al., 2023; Juma, 2024, p. 2). Ultimately, fostering such sustainable growth requires educational systems to align professional development with evidence-based curriculum standards, ensuring that interventions are both theoretically grounded and practically applicable to the diverse needs of modern classrooms (Samundeeswari, 2024; Tunga et al., 2025). Programs lasting at least 20 hours, supplemented by expert modelling and ongoing self-monitoring, are essential to move beyond superficial implementation toward sustained pedagogical change (Hellman et al., 2025, p. 25). Beyond structural adjustments, cultivating an institutional culture that promotes the contagious spread of positive professional attitudes among colleagues is equally vital for mitigating resistance and reinforcing collective commitment.

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