

## Continuous Professional Development and the Dynamics of Teacher Professionalism

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**ABSTRACT:** *This study aims to analyze the implementation of Continuous Professional Development (CPD) in strengthening teacher professionalism in Madrasah Aliyah Negeri (MAN) throughout West Java. The study used a qualitative approach with a multi-site case study design in several purposively selected MAN. The researchers collected data through in-depth interviews, observations, and documentation studies, then analyzed them using thematic analysis techniques through the stages of data reduction, data presentation, and conclusion drawing. The results show that the implementation of CPD has been carried out through various internal and external activities, such as Musyawarah Guru Mata Pelajaran (MGMP), In-House Training, academic supervision, and technology-based learning training. CPD contributes to strengthening professional knowledge, pedagogical and technical skills, as well as the formation of professional attitudes of teachers who are more reflective, disciplined, and open to learning evaluation. However, the effectiveness of CPD implementation is still influenced by program planning that is not fully based on teacher needs, limited post-training mentoring, and inconsistent implementation of training results. This study also shows that a collaborative culture, madrasah institutional support, and professional learning communities play an important role in supporting the sustainability of teacher professional development. This research contributes to strengthening the understanding that CPD is not only related to improving technical competence but also to the holistic development of teacher professionalism in the context of Islamic education. The implications of this research emphasize the importance of developing needs-based CPD, strengthening ongoing mentoring systems, and impact-based evaluation of learning practices.*

Penelitian ini bertujuan untuk menganalisis implementasi *Continuous Professional Development* (CPD) dalam penguatan profesionalisme guru di Madrasah Aliyah Negeri (MAN) se-Jawa Barat. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus multi-situs pada beberapa MAN yang dipilih secara purposif. Data dikumpulkan melalui wawancara mendalam, observasi, dan studi dokumentasi, kemudian dianalisis menggunakan teknik analisis tematik melalui tahap reduksi data, penyajian

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data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa implementasi CPD telah dilaksanakan melalui berbagai kegiatan internal dan eksternal, seperti *Musyawah Guru Mata Pelajaran (MGMP)*, In-House Training, supervisi akademik, dan pelatihan berbasis teknologi pembelajaran. CPD berkontribusi terhadap penguatan pengetahuan profesional, keterampilan pedagogis dan teknis, serta pembentukan sikap profesional guru yang lebih reflektif, disiplin, dan terbuka terhadap evaluasi pembelajaran. Namun demikian, efektivitas implementasi CPD masih dipengaruhi oleh perencanaan program yang belum sepenuhnya berbasis kebutuhan guru, keterbatasan pendampingan pasca-pelatihan, serta implementasi hasil pelatihan yang belum konsisten. Penelitian ini juga menunjukkan bahwa budaya kolaboratif, dukungan kelembagaan madrasah, dan komunitas belajar profesional berperan penting dalam mendukung keberlanjutan pengembangan profesional guru. Penelitian ini memberikan kontribusi dalam memperkuat pemahaman bahwa CPD tidak hanya berkaitan dengan peningkatan kompetensi teknis, tetapi juga dengan pembentukan profesionalisme guru secara holistik dalam konteks pendidikan Islam. Implikasi penelitian menekankan pentingnya pengembangan CPD berbasis kebutuhan, penguatan sistem pendampingan berkelanjutan, serta evaluasi berbasis dampak terhadap praktik pembelajaran.

**Keywords:** *CPD, Teacher Professionalism, Madrasah, Professional Development, Islamic Education.*

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## I. INTRODUCTION

The development of 21st-century education is marked by a change in the learning paradigm that positions teachers not only as conveyors of information but also as facilitators, motivators, collaborators, and innovators in the learning process (Ragas et al., 2024). The development of digital technology influences this transformation, the globalization of education, and the demands for improving the quality of human resources that are adaptive to social changes and the world of work (Rahimi & Oh, 2024). In this context, teacher professionalism is an important factor in determining the quality of education because teachers' competence and professional capacity greatly influence the quality of learning and enable teachers to manage learning effectively and innovatively (Ramadhani & Ikhwan, 2024). Teacher professionalism is not only related to mastery of teaching materials, but also includes pedagogical abilities, technological skills, reflective abilities, and professional attitudes that demonstrate a commitment to continuous self-development (Ikhwan, 2025). Therefore, teacher professional development needs to be carried out systematically, planned, and sustained so that teachers are able to respond to the increasingly complex dynamics of educational change. In the context of Indonesian education, the Continuing Professional Development program (CPD) facilitates efforts to improve teacher professionalism and functions as part of a national policy to enhance teacher competency continuously (Widayati et al., 2021).

This program is aimed at strengthening the pedagogical, professional, social, and personality competencies of teachers through various self-development activities,

scientific publications, and innovative works (Sari et al., 2023). CPD is seen as an important instrument in building a culture of lifelong learning for teachers through continuous professional development to improve the quality of learning in line with current developments (Friedman, 2023; Thwe & Kálmán, 2024). From the perspective of teacher professional development, professionalism is understood as a continuous process that develops through collaboration, reflection, professional learning, and institutional support, as stated by Darling-Hammond et al. (2017); Guskey (2002). In the Madrasah Aliyah environment, the implementation of CPD has more complex characteristics because teachers are not only required to master academic and pedagogical competencies, but also can shape the religious character of students in accordance with Islamic educational values; therefore, strengthening teacher professionalism in madrasas requires a professional development approach that is contextual and relevant to the characteristics of Islamic education (Basri et al., 2021). Although CPD has become a strategic government program aimed at enhancing teacher quality, its implementation in the field continues to encounter complex challenges. Numerous studies indicate that various constraints, such as high administrative burdens, time limitations, insufficient institutional support, and the lack of relevance between training materials and teachers' actual classroom needs, hinder the optimal implementation of CPD (Pratiwi et al., 2024).

Furthermore, several CPD activities tend to remain administrative formalities, oriented more toward fulfilling bureaucratic obligations rather than fostering competency development that directly impacts instructional quality (Murwaningsih et al., 2022). Consequently, CPD implementation has often been unable to drive significant changes in pedagogical practices or establish a sustainable professional culture among teachers, some studies suggest that CPD can enhance teachers' pedagogical competence, reflective abilities, and instructional innovation—particularly in the utilization of technology and the development of participatory learning strategies (Supiana et al., 2021). However, other research indicates that such competency improvements often lack sustainability due to inadequate mentoring, weak program evaluation, and minimal institutional support for implementing training outcomes within the school environment (Wendi et al., 2025). Most prior studies have predominantly focused on pedagogical competence or technical instructional aspects, while the dimensions of teacher professionalism—encompassing professional knowledge, skills, and attitudes—have not been comprehensively examined (Mardhatillah & Surjanti, 2023). Furthermore, studies on CPD within the MAN context remain limited, despite its distinct institutional characteristics and educational orientation toward integrating academic mastery with students' religious character building (Nurriqi, 2021).

This study differs from previous research as it does not merely examine CPD as an administrative program; rather, it analyzes how CPD contributes to strengthening teacher professionalism through an integrated approach involving professional knowledge, pedagogical and technical skills, and the formation of professional attitudes within the context of MAN in West Java (Fannisa et al., 2025). Accordingly, this research offers a theoretical contribution by reinforcing a holistic perspective on teacher professionalism in Islamic education, while simultaneously providing practical contributions toward developing a more contextual and sustainable CPD implementation model in madrasah environments. Based on this rationale, the current study aims to analyze the implementation of CPD in strengthening teacher professionalism at MAN in West Java. Specifically, this study examines the forms of CPD activities, their contribution to

enhancing teachers' professional knowledge and skills, and their influence on the formation of professional attitudes in instructional practice. The findings are expected to inform the development of more contextual CPD policies and sustainable professional mentoring system within the context of Islamic education.

## **II. METHOD**

This study employs a qualitative approach with a multi-site case study design to analyze the implementation of Continuing Professional Development (CPD) in strengthening teacher professionalism in Madrasah Aliyah Negeri (MAN) (Creswell, 2009). The multi-site case study design is utilized to obtain a more comprehensive understanding of CPD implementation across several MAN with different characteristics (Yin, 2017). The research was conducted at several MAN in the West Java region, selected purposively based on the level of activity in CPD implementation, the number of teachers, and the diversity of educator backgrounds. The researchers conducted the study in April 2026. Research informants consisted of teachers actively participating in CPD activities, madrasah principals, vice principals of curriculum, and CPD coordinators. Informant selection employed a purposive sampling technique, considering direct involvement in CPD implementation. Additionally, snowball sampling was used to obtain additional informants deemed relevant to the research focus. Overall, the study involved 15 informants consisting of 10 teachers, 3 principals/vice principals, and 2 CPD coordinators from several MANs in West Java.

Data collection was conducted through observation, in-depth interviews, and documentation studies. Observations were carried out to observe the implementation of CPD activities and teachers' professional practices within the madrasah environment. Semi-structured interviews were used to explore the experiences, perceptions, and views of informants regarding CPD implementation. The interview process lasted between 45-90 minutes and was conducted both directly and online according to informant availability. All interviews were recorded and transcribed for data analysis purposes. Documentation was performed on various supporting documents, such as CPD activity reports, instructional tools, and madrasah policies related to teacher professional development. Data analysis was performed interactively through the stages of data reduction, data display, and conclusion drawing as proposed by Miles, Huberman, and Saldaña (2014). Subsequently, data were presented in the form of thematic narratives to facilitate the identification of patterns and relationships between findings. Conclusion drawing was carried out gradually and continuously verified throughout the research process. The researchers maintained data validity through source triangulation, technical triangulation, and member checking. The researchers conducted source triangulation by comparing information from teachers, principals, and supporting documents. Technical triangulation was performed by comparing results from observations, interviews, and documentation. Meanwhile, member checking was conducted by reconfirming interview results with informants to ensure the consistency of data and researcher interpretation (Lincoln & Guba, 1985). Through these procedures, the research is expected to produce valid data and comprehensively describe the implementation of CPD in strengthening teacher professionalism.

### III. RESULT AND DISCUSSION

#### Result

##### Implementation of the Continuous Professional Development Program

The findings indicate that CPD has been implemented in a structured manner across all three madrasahs through workshops, Subject Teacher Forums (MGMP), In-House Training (IHT), academic supervision, and technology-based instructional training. Institutional policy support from school leadership serves as a key driver in sustaining the continuity of these activities. Despite sharing similar forms of CPD activities, each madrasah exhibits distinct implementation characteristics shaped by its internal policies and organizational culture. At MAN 1 Cianjur, a designated CPD coordinator oversees the scheduling and monitoring of all professional development activities, ensuring that programs run in a directed and sustainable manner. Observation results at this site confirm that CPD activities are carried out through both internal and external channels, including IHT, workshops on developing instructional tools, digital media training, and academic supervision. MAN 2 Bandung has developed a strong collaborative culture among teachers, who routinely share instructional experiences and materials following MGMP sessions. In addition to formal training, teachers at this site engage in ongoing instructional discussions and peer learning as part of their professional development. MAN 1 Bandung, meanwhile, demonstrates the most systematic follow-up mechanism, integrating CPD activities with the madrasah's broader vision of academic quality and requiring teachers to demonstrate the application of training outcomes in actual classroom settings. The importance of structured coordination was affirmed by the school principal of MAN 1 Cianjur:

“Teachers are directed to actively participate in workshops, MGMP, or training. A specific coordinator helps manage implementation so that activities do not run in isolation.” (KS-1/MAN1CJR/Interview).

This view was complemented by the CPD coordinator at MAN 2 Bandung, who emphasized the importance of translating training outcomes into actual classroom practice:

“The CPD program here is directed so that teachers can keep up with instructional developments — not just attending training, but how the results can be applied in classroom instruction. Usually, teachers also share experiences after attending workshops or MGMP activities.” (KP-2/MAN2BDG/Interview).

Despite these positive conditions, the study identified a shared challenge across all three sites. CPD planning has not been fully grounded in systematic teacher needs analysis, resulting in some training activities being too general to be directly applicable in subject-specific instructional contexts. The level of teacher involvement also shows considerable variation, with some teachers actively engaging in multiple professional development activities while others still require mentoring and motivational reinforcement. Overall, however, CPD implementation across the three madrasahs has proceeded on a consistent structural basis, with all sites demonstrating institutional commitment to teacher professional development.

### **Implementation of CPD Results in Instructional Practices**

Research findings show that various CPD activities have begun to be reflected in teachers' classroom instructional practices. Observable changes across the three madrasahs include the use of digital learning media, diversification of teaching methods, and increased student participation in the learning process. Classroom observations confirmed that teachers have started incorporating interactive presentations, educational videos, and collaborative group work into their lessons, reflecting a gradual shift from predominantly teacher-centered to more student-centered learning approaches. At MAN 1 Cianjur, teachers reported that workshop and training experiences provided new insights, particularly in the use of digital learning media and classroom management. Teachers began attempting methods that were previously rarely used. At MAN 2 Bandung, the application of CPD results is evident in the use of collaborative learning strategies and digital platforms such as Google Classroom in assignments and classroom activities. Teachers have reduced the dominance of lecture-based instruction and provided wider space for student involvement. At MAN 1 Bandung, post-training follow-up sessions have reinforced the transfer of training outcomes to classroom practice, with teachers consistently encouraged to demonstrate new learning in actual teaching. The vice principal of curriculum at MAN 1 Bandung noted that follow-up on training results is actively encouraged at the institutional level:

“After attending training, teachers are asked to share the results or try implementing them in learning. So, there is a follow-up after the activity is completed.” (WK-1/MAN1BDG/Interview).

This institutional expectation was reflected in teachers' accounts of their own instructional changes. A teacher at MAN 1 Cianjur reported:

“After the training, I started trying interactive media so that students are more engaged in following the lesson. Previously, I relied more on conventional methods.” (G-2/MAN1CJR/Interview).

Nevertheless, the application of CPD results remains inconsistent across individual teachers. Several teachers noted that not all training content can be applied directly, as it often requires adaptation to the specific conditions of each class and subject matter. Administrative workload and time constraints were also cited as factors that limit the extent to which teachers can fully implement new instructional approaches following training. These variations indicate that while CPD has initiated meaningful instructional change, the process of sustained application remains a work in progress across all three sites.

### **Enhancing Teachers' Pedagogical Skills through CPD Activities**

CPD participation has contributed to notable improvements in teachers' pedagogical competence across the three madrasahs. Teachers demonstrated a broader repertoire of instructional strategies, moving away from lecture-dominant delivery toward approaches that include group discussions, student presentations, and project-based tasks. Classroom observations at all three sites confirmed higher levels of student engagement and more interactive classroom dynamics when participatory methods were employed. Teachers also showed greater flexibility in adapting their methods to the characteristics of different classes, student needs, and subject matter. At MAN 1 Cianjur, teachers reported that CPD activities led them to try more varied learning media, including educational videos and visual aids, to maintain student engagement. At MAN 2 Bandung, teachers demonstrated

increased use of group discussions and student presentations, with several also adjusting learning methods to accommodate varying levels of student engagement across different classes. At MAN 1 Bandung, academic supervision and follow-up evaluations have played an important role in helping teachers identify areas for instructional improvement and encouraging the adoption of more innovative approaches. A teacher at MAN 2 Bandung described the instructional shift resulting from CPD participation:

“After attending training several times, I have become more frequent in using group discussions or presentations. Usually, students are more active when they are directly involved like that.” (G-6/MAN2BDG/Interview).

A similar perspective was shared by a teacher at MAN 1 Bandung, who noted the role of supervision feedback in informing pedagogical improvement:

“Usually, after supervision, there is feedback regarding teaching methods or classroom management. From there, teachers know which parts need to be improved.” (G-8/MAN1BDG/Interview).

Across the three madrasahs, interview data and classroom observations consistently show the use of more varied instructional methods, the integration of digital learning media, and greater student involvement in learning activities following CPD participation. The degree of implementation, however, varies among individual teachers according to their teaching experience, subject characteristics, and classroom conditions.

### **Impact of CPD on Teachers’ Professional Attitudes and Behaviors**

Beyond improvements in instructional skills, CPD implementation has also produced observable changes in teachers’ professional attitudes and behaviors. Across all three madrasahs, teachers reported increased discipline in preparing lesson plans and instructional tools prior to teaching. Supervisory feedback, which was previously perceived by some as evaluative, is now more commonly embraced as a constructive basis for instructional improvement. Additionally, habits of post-lesson reflection have begun to take shape, with teachers regularly reviewing the effectiveness of their instructional delivery and identifying areas for development.

At MAN 1 Cianjur, observation results show teachers arriving to class with prepared instructional tools and media, and communication between teachers and students during lessons has become more open. At MAN 2 Bandung, discussion activities among teachers have increased, with colleagues sharing instructional experiences and providing peer feedback following MGMP and workshop activities. At MAN 1 Bandung, several teachers have begun proactively seeking out webinars and online training independently, beyond madrasah-organized programs, reflecting a growing internalization of a professional growth mindset. The vice principal of curriculum at MAN 1 Cianjur observed a broad shift in teachers’ openness to evaluation following repeated CPD engagement:

“After several rounds of training and supervision, teachers have become more accustomed to receiving evaluations. Previously, some might have felt uncomfortable when given feedback, but now it is more often used as a basis for improvement in the next lesson.” (WK-1/MAN1CJR/Interview).

A teacher at MAN 1 Bandung further described the emergence of reflective practice as a habitual part of their professional routine:

“After finishing teaching, I usually try to look back at which parts went smoothly and which parts need to be improved in the next meeting.” (G-10/MAN1BDG/Interview).

Interview, observation, and documentation data across the three madrasahs consistently indicate changes in teachers’ habits regarding lesson preparation, receptiveness to evaluation, instructional reflection, and participation in self-directed professional development activities. These behavioral changes suggest that CPD has produced meaningful professional transformation that extends beyond formal skill acquisition, contributing to a broader culture of continuous learning within each madrasah.

**Table 1. Summary of CPD Implementation Findings Across Three Madrasahs**

No	Focus of Findings	Description of Field Findings
1	CPD Implementation	Conducted via workshops, MGMP, IHT, academic supervision, and technology-based training. Each madrasah shows distinct strengths: coordination (MAN 1 Cianjur), collaboration (MAN 2 Bandung), and follow-up (MAN 1 Bandung).
2	Instructional Application	Teachers began using digital media, educational videos, group discussions, and student-centered activities, though consistency varies across individuals and sites.
3	Pedagogical Skills	Shift from teacher-centered to participatory approaches; greater adaptation of methods to class conditions, student characteristics, and subject matter.
4	Student Engagement	Students observed to be more active in discussions, presentations, and Q&A activities when interactive and participatory methods were applied.
5	Professional Attitudes	Improved lesson preparation, reflective practice, openness to supervisory feedback, and independent self-development initiatives.
6	Teacher Collaboration	Increased peer discussion and instructional material sharing following MGMP and workshop activities across all three madrasahs.

## Discussion

### Implementation of the Continuous Professional Development Program

The implementation of CPD in the three MAN in this study is carried out through various forms of activities such as workshops, Subject Teacher Forums (MGMP), academic supervision, In-House Training (IHT), and instructional technology-based training. These forms of activities demonstrate that teacher professional development in madrasahs occurs not only through formal training but also through collective activities and internal institutional guidance. According to Fernandes et al. (2023), teacher professional development is a continuous process related to enhancing pedagogical

capacity, instructional adaptability, and strengthening teaching quality. In addition to improving individual teacher competence, CPD activities are also associated with the formation of a professional learning culture within the school environment (Aditya et al., 2025).

In the context of Islamic education, teacher professional guidance is often directed not only at enhancing pedagogical abilities but also at strengthening professional ethics and the moral responsibility of teachers as educators (Ahmad et al., 2023). Although the three madrasahs implement CPD programs in relatively similar forms of activities, this study reveals differences in implementation patterns at each madrasah. At MAN 1 Cianjur, CPD implementation is more directed toward strengthening instructional practices through internal workshops, academic supervision, and training in the use of learning media. This condition indicates that professional development activities in the madrasah are more closely aligned with the practical instructional needs faced daily by teachers in the classroom. Desimone (2011) explains that teacher professional development will be more effective if it is directly related to instructional practices and the real needs of teachers in the teaching and learning process. A practice-based professional development approach also allows teachers to adjust instructional strategies according to the conditions of students in the classroom (Idris & Kálmán, 2023). In this study, academic supervision is seen not only as a form of instructional administrative evaluation but also as part of the teacher's professional guidance process. These findings show that CPD implementation in madrasahs develops not only as a formal institutional program but also as a continuous instructional mentoring process (Murtyaningsih et al., 2026).

In contrast to MAN 1 Cianjur, which emphasizes the strengthening of instructional practices, CPD implementation at MAN 2 Bandung exhibits a more collaborative professional development pattern through MGMP forums, instructional discussions, and sharing teaching materials among teachers. These activities demonstrate that the teacher professional development process occurs through collective interaction and the exchange of teaching experiences. According to Khasawneh et al. (2023), collaborative activities within professional learning communities allow teachers to reflect together on classroom instructional practices. Antinluoma et al. (2021) also explain that professional learning communities can help teachers build a collaborative work culture that supports instructional innovation in schools. In the context of MGMP, discussion activities and sharing teaching experiences provide opportunities for teachers to obtain alternative instructional strategies and classroom management from peers. Furthermore, a collaboration-based professional development pattern is related to the formation of an organizational learning culture that supports continuous improvement of teacher competence.

The collaborative process among teachers also allows for the exchange of practical knowledge derived from daily instructional experiences. Meanwhile, CPD implementation at MAN 1 Bandung shows stronger institutional involvement through academic supervision, instructional monitoring, and periodic follow-up on training results. Teachers not only attend training but are also encouraged to apply the training results in the learning process and evaluate the teaching and learning activities that have taken place. This condition shows that CPD implementation depends not only on individual teacher participation but is also influenced by management support and madrasah policies. In this context, academic supervision and instructional monitoring conducted by the madrasah demonstrate the practice of instructional leadership in teacher professional development (Ayumi & Nasution, 2025). The role of the madrasah principal

in supporting teacher guidance activities is also related to the formation of a professional culture and the improvement of instructional quality in schools (Ani et al., 2025). These findings reveal that the sustainability of CPD implementation in madrasahs is influenced by institutional support, organizational policies, and the commitment of madrasah leaders toward teacher professional development.

This research also reveals that CPD implementation in the three madrasahs is not yet fully based on systematic teacher needs analysis. This condition causes some teachers to feel that the training materials are not always relevant to the instructional needs faced in the classroom. In the study of teacher professional development, Sims et al. (2021) explain that the effectiveness of training is highly influenced by the alignment between development materials and the needs of teachers in the field. Furthermore, Asterhan & Lefstein (2024) emphasize that professional development activities not connected to teachers' real needs often stop at the administrative aspect without producing significant instructional changes. Therefore, mapping teacher needs becomes an essential part of CPD program planning so that training activities are more suitable for the instructional conditions in each madrasah (Numa & Hanif, 2025).

The characteristics of CPD implementation in the madrasah environment in this study also show a link between teacher professional development and Islamic educational institutional culture. In several activities, teacher guidance is directed not only at enhancing pedagogical and professional competencies but also at forming work ethics, moral responsibility, and Islamic values in the educational process. Teacher professionalism in Islamic education is understood not only as mastery of technical instructional competencies but also as related to moral integrity and ethical responsibility as an educator (Hidayah & Wahid, 2025). The organizational culture of the madrasah also influences patterns of guidance, work interaction, and teacher professional development within the Islamic educational environment. In this context, CPD implementation in madrasahs exhibits different characteristics compared to general schools because teacher professional development runs alongside the guidance of values, professional ethics, and the strengthening of Islamic institutional identity. These characteristics indicate that teacher professional development in madrasahs is also linked to the formation of a work culture and professional identity for teachers within the Islamic educational environment (Solehan, 2024).

On the other hand, this study shows that teacher administrative burdens, limited implementation time, and the uneven follow-up of training results cause the application of CPD results among individual teachers to occur with varying intensities. According to Booker & Russell (2022), changes in instructional practices require a continuous mentoring process so that changes can be sustained in daily teaching activities. In line with McChesney & Cross (2023) explain that working conditions, administrative burdens, and school organizational culture often influence teacher professional development. Time constraints and high administrative demands are also factors that influence teacher participation in continuous professional development activities (Rama & Ucang, 2024).

Additionally, the sustainability of implementing training results is often influenced by institutional support and the opportunity for teachers to apply those results in daily instruction (Raihan et al., 2024). These findings show that the success of CPD implementation is determined not only by the execution of training but is also influenced by the support systems available in the madrasah environment. Overall, this research

shows that CPD implementation in MAN develops through various forms of professional development activities with different implementation characteristics at each madrasah. In the study of teacher professional development, the implementation of development programs is highly influenced by organizational context, work culture, and instructional needs in each educational institution (Jurs et al., 2023). The findings of this research demonstrate that CPD implementation in madrasahs does not occur in a uniform pattern but develops according to the organizational culture, institutional policies, and instructional needs in each madrasah. This condition shows that teacher professional development in madrasahs has contextual characteristics influenced by Islamic educational culture, patterns of madrasah leadership, and instructional dynamics at each institution

### **Contribution of CPD to Strengthening Teachers' Pedagogical and Technical Skills**

This research demonstrates that CPD contributes to the strengthening of teachers' pedagogical and technical skills in MAN. This contribution is evident through the shift in instructional practices, moving from conventional patterns toward more participatory and student-centered learning. Such changes are manifested in the use of more varied teaching methods, student engagement in instructional discussions, and the increased use of digital media in the teaching and learning process. The development of teachers' pedagogical skills within the CPD program pertains to their ability to adapt instructional strategies to student needs and modern educational developments (Wahyuni & Supendi, 2023). Furthermore, the enhancement of teachers' technical skills relates to the ability to integrate educational technology into teaching and learning activities (Theodorio, 2024). At MAN 2 Bandung and MAN 1 Bandung, changes in pedagogical skills are visible through the application of methods such as project-based learning, group discussions, and the utilization of digital learning media. These findings show that CPD activities not only increase teachers' theoretical knowledge but also drive changes in classroom practices. Guskey, (2002) explains that the success of teacher professional development can be seen in tangible changes in instructional practices and students' learning experiences. These changes also indicate that CPD activities have assisted teachers in aligning instruction with 21st-century learning demands, which emphasize students' creativity, communication, collaboration, and critical thinking skills (Ragas et al., 2024). Thus, the strengthening of pedagogical skills in this study relates not only to teaching ability but also to the teachers' capacity to manage instruction that is more adaptive to student needs.

Beyond changes in instructional strategies, the contribution of CPD is also evident in the increased ability of teachers to utilize educational technology. Teachers have begun using interactive presentation media, instructional evaluation applications, digital platforms, and the madrasah's e-learning system in the learning process. The utilization of such technology indicates that CPD activities also encourage teachers' digital adaptation in instruction. Integrating technology into teacher professional development is considered crucial as it helps teachers expand the variety of teaching methods and increase student engagement in the learning process (P. Casilao et al., 2025). The use of digital media in instruction is also related to the shift in the teacher's role from an information deliverer to a more interactive learning facilitator (Wulandari & Viratama, 2025). In the context of this study, teachers' technological abilities do not develop in isolation from pedagogical skills but are interrelated in daily instructional practices. Teachers who begin utilizing digital media also tend to show changes in classroom management, material delivery, and instructional interaction patterns with students.

This research also shows that the strengthening of teachers' pedagogical skills is not only influenced by formal training but also develops through a process of reflection and collaboration among teachers. Reflective practice in teacher professional development is considered vital as it helps teachers understand weaknesses and continuous development needs (Rauteda, 2024). Furthermore, collaboration among teachers through professional learning communities allows for the exchange of practical experiences related to classroom management, teaching methods, and the use of learning media (Sarimanond et al., 2025). In the context of this study, reflection and collaboration do not stand as separate activities but become part of the process of strengthening teachers' pedagogical skills after participating in CPD activities. Nonetheless, this study demonstrates that the contribution of CPD to teachers' pedagogical skills is not yet entirely consistent. In some instances, changes in instructional strategies appear more prominent during academic supervision or monitoring by the madrasah, while in daily teaching activities, some teachers revert to conventional patterns. This condition indicates that changes in pedagogical skills require a gradual and sustainable adaptation process.

Furthermore, the strengthening of teachers' pedagogical skills cannot be understood as an instant result of training activities but as a professional process that develops through continuous instructional practice. This condition is also related to the suboptimal post-training mentoring in CPD implementation. This research indicates that training activities not followed by coaching, mentoring, or instructional assistance tend to produce temporary changes. Teachers do acquire new knowledge and skills during training, but application in instruction often faces obstacles when there is no continuous follow-up process. Professional mentoring is considered essential in helping teachers apply training results into actual classroom practices (Ewing, 2021). Then, mentoring activities help teachers build self-confidence and consistency in implementing new instructional strategies (Lazarides & Warner, 2020). In this study, training, reflection, collaboration, and mentoring appear interrelated in forming the process of strengthening teachers' pedagogical skills. These findings suggest that the effectiveness of CPD depends not only on the quality of training materials but also on the sustainability of the professional learning ecosystem that supports teachers after the training is completed (Haeriah et al., 2025). On the other hand, this research also shows that the success of strengthening teachers' pedagogical and technical skills is influenced by institutional support and madrasah leadership.

Madrasahs that possess a collaborative culture, active academic supervision, and support for instructional innovation tend to show more visible changes in teacher skills compared to madrasahs where CPD implementation remains purely administrative (Rezeki et al., 2024). The support of the madrasah principal in teacher professional development is related to the formation of a professional learning environment that supports changes in instructional practices. Furthermore, a school organizational culture that is open to reflection, instructional discussion, and innovation also influences the successful implementation of teacher training results (Mulyana et al., 2021). The findings of this research indicate that the strengthening of teacher skills through CPD is influenced not only by individual teacher factors but also by organizational culture, leadership patterns, and institutional support at each madrasah. Overall, this research demonstrates that CPD contributes to the strengthening of teachers' pedagogical and technical skills through changes in instructional strategies, technology utilization, development of reflective practices, and collaboration among teachers. These various aspects do not operate in isolation but support one another in forming the teacher

professional development process within the madrasah environment. The utilization of educational technology, for example, is related to changes in teaching strategies, while teacher reflection and collaboration aid the adaptation process to new instructional practices. These findings suggest that the strengthening of teacher skills through CPD develops through a professional learning ecosystem involving continuous training, reflection, collaboration, mentoring, and institutional support. Consequently, the contribution of CPD in this study is seen not only in the improvement of teachers' technical abilities but also in the formation of a more adaptive and collaborative professional learning process within the madrasah environment.

### **CPD in the Formation of Teachers' Professional Attitudes and Behavior**

The implementation of CPD in this study is not only related to the enhancement of teachers' pedagogical abilities but is also connected to the formation of professional attitudes and behaviors in carrying out instructional duties. These changes are evident in the increased discipline of teachers in preparing instructional tools, openness to instructional evaluation, and the emergence of the habit of reflecting on the teaching and learning processes that have been conducted. In the context of madrasah education, teacher professionalism is understood not only as technical teaching ability but also as related to moral responsibility, professional ethics, and commitment to the role of an educator (Nadia, 2025). The professional attitude of teachers in madrasahs is also linked to an institutional culture that positions teachers not only as instructors but also as role models in shaping student character (Muis et al., 2019). The shift in teachers' professional attitudes in this study did not occur instantly after participating in CPD activities but developed through a process of habituation, supervision, instructional reflection, and professional interaction among teachers.

In several madrasahs, teachers have become accustomed to evaluating instructional tools and teaching strategies after receiving feedback from academic supervision and teacher discussion forums. This condition indicates that the reflection process is a vital part of forming professional teacher behavior. Nazir et al. (2022) explain that reflection helps teachers critically evaluate instructional practices, enabling them to conduct continuous instructional improvements. In this study, the reflection process not only occurs individually but also develops through collective interaction among teachers in MGMP forums and instructional discussion activities. Teachers actively involved in such activities tend to be more open to changes in instructional strategies and more receptive to feedback from peers and madrasah leadership. In addition to instructional reflection, the formation of teachers' professional attitudes also develops through a collaborative culture built within MGMP activities and teacher learning communities. This research shows that teacher involvement in discussion forums and sharing teaching experiences helps build mutual support and collective responsibility in improving instructional quality. Murad et al. (2022) state that a professional learning community can strengthen teachers' professional commitment through a culture of shared learning and instructional collaboration. In the context of this study, MGMP activities function not only as administrative forums for preparing instructional tools but also as spaces for exchanging experiences and evaluating instructional practices among teachers. This interaction gradually forms a more open and collaborative professional work pattern within the madrasah environment (Sari & Maulidin, 2024). In some instances, teachers who previously tended to work individually have become accustomed to discussing instructional problems with others and are more open to criticism and suggestions regarding the learning process (Nurul. et al., 2024).

This study also shows that coaching and mentoring practices in CPD implementation influence changes in teachers' professional behavior, particularly in building self-confidence and teacher readiness to face instructional changes. Teachers who receive continuous assistance tend to be more consistent in applying training results compared to those who only attend training without follow-up. Geletu (2026) explains that mentoring and coaching not only help improve teachers' technical competence but also affect their motivation, commitment, and professional attitude in carrying out teaching duties. In this study, the mentoring process helps teachers adapt to new instructional demands, especially in using educational technology and developing more active learning methods. Furthermore, informal mentoring relationships between senior teachers and others within the madrasah environment also contribute to the formation of a mutual learning culture in the workplace (Hooper & Garin, 2024).

Nonetheless, this research shows that changes in teachers' professional attitudes and behaviors have not occurred uniformly across all teachers. In some conditions, there are still teachers who show resistance to change and are not fully adaptive to instructional innovations or reflection-based instructional evaluations. Some teachers still view CPD activities as administrative demands related to institutional obligations and the fulfillment of instructional documents. This condition indicates that the internalization of professional values in CPD activities still faces challenges among some teachers. Jin et al. (2021) state that changes in teachers' professional behavior are a long-term process influenced by work experience, individual motivation, organizational culture, and work environment support.

In the context of this study, resistance to change appears more frequently among teachers who have long used conventional learning patterns and are unaccustomed to evaluation cultures or collaborative learning (Lomba-Portela et al., 2022). Additionally, administrative burdens and teacher work routines also affect teacher readiness to participate in continuous professional development processes (Pratiwi et al., 2024). On the other hand, institutional support and madrasah culture also influence the formation of professional behavior in CPD implementation. Elfarargy et al. (2022) explain that a supportive professional learning community environment can strengthen teachers' professional identity and increase their involvement in instructional development. In the madrasah context, institutional support comes not only from the madrasah principal but is also related to teacher guidance policies within the Ministry of Religious Affairs and a madrasah organizational culture that emphasizes values of discipline, responsibility, and work ethics (Khofi et al., 2026). These characteristics indicate that the formation of teachers' professional attitudes in madrasahs develops within an institutional context that has both academic and religious orientations.

Besides forming attitudes of discipline and professional responsibility, this research also shows that CPD activities encourage some teachers to develop habits of independent and continuous learning. Teachers who actively participate in CPD activities tend to be more open to new learning sources, more active in seeking instructional references, and better prepared to follow curriculum or educational technology changes. Hanfstingl & Pflaum (2022) explain that continuous professional development can shape a lifelong learning orientation in teachers through an ongoing process of reflection and learning. In this study, continuous learning habits develop not only through formal training but also through professional interaction among teachers, the use of digital learning media, and the demands of adapting to instructional changes in the madrasah (Thwe & Kálmán, 2024). This condition indicates that CPD not only affects teachers' instructional practices

but also shapes a professional mindset that views the learning process as part of continuous self-development. Overall, this research demonstrates that CPD contributes to the formation of teachers' professional attitudes and behaviors through the processes of reflection, collaboration, mentoring, and a professional work culture within the madrasah environment. These findings reveal that the formation of teacher professionalism in madrasahs is influenced not only by formal training programs but also by the social environment and institutional culture where teachers carry out their professional practices (Sims et al., 2021). Furthermore, the context of the madrasah as an Islamic educational institution provides specific characteristics to the process of forming professional attitudes because professional development runs parallel with the strengthening of moral values, professional ethics, and the religious responsibility of teachers as educators.

### **Problems of Implementing CPD in Strengthening Teacher Professionalism**

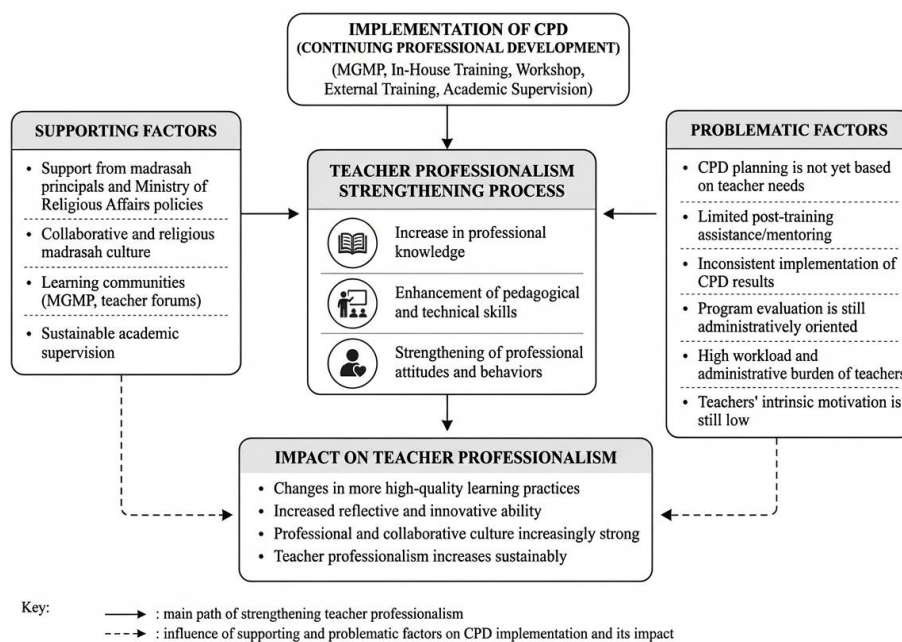
The implementation of CPD in this study indicates that teacher professional development programs have been operational through various activities such as Subject Teacher Forums (MGMP), In-House Training (IHT), academic supervision, and instructional technology-based training. The existence of these programs reflects institutional support for teacher professional development within the madrasah environment (Murwaningsih et al., 2022). In the madrasah context, this institutional support is also linked to teacher guidance policies under the Ministry of Religious Affairs, which encourage continuous improvement of teacher competence and professionalism (Khofi et al., 2026). The presence of relatively structured CPD programs indicates that madrasahs have developed an institutional awareness of the importance of teacher professional development as part of enhancing educational quality (Janah et al., 2025). Besides institutional support, this study also shows that the diversity of CPD activities provides space for teachers to develop professional competencies through various learning approaches. Activities such as MGMP, internal workshops, digital training, and instructional supervision allow teachers to gain a more flexible and contextual learning experience suited to the instructional needs of the madrasah. Darling-Hammond et al. (2017) explain that effective teacher professional development generally occurs continuously, collaboratively, and is directly related to instructional practices. In this study, collaborative activities among teachers through MGMP assist teachers in exchanging teaching experiences, discussing instructional constraints, and collectively evaluating instructional practices (Nurul et al., 2024). In several madrasahs, the use of digital media and instructional technology training has also begun to show a process of adaptation toward technology-based instructional changes (Fernández-Batanero et al., 2022). This condition demonstrates that CPD implementation is not only related to the improvement of individual teacher abilities but also to the formation of a professional learning culture within the madrasah environment.

Nevertheless, this research reveals that CPD implementation still faces various challenges that affect the effectiveness of teacher professional development. One prominent condition is the suboptimal planning of CPD programs based on teacher needs. Several training activities are still structured based on routine institutional programs without being preceded by an in-depth mapping of teacher competency needs. Studies on teacher professional development indicate that the main challenge in implementing training programs lies in the relevance of the material to the instructional needs teachers face in the classroom (Fairman et al., 2022). In the madrasah context,

limited planning time, high teacher administrative burdens, and the alignment of programs with institutional policies also affect the process of identifying teacher needs.

Murwaningsih & Fauziah (2022) explain that a mismatch between teacher needs and training materials can reduce the effectiveness of professional development because the program does not fully address the needs of instructional practices in the field. Another problem found in this study is the suboptimal post-training mentoring in CPD implementation. In some conditions, professional development activities stop at the training stage without any follow-up in the form of coaching, mentoring, or monitoring of the implementation of training results in instruction. This condition causes some teachers to experience difficulties when they must consistently apply new instructional strategies in class. Geletu (2026) explains that coaching and mentoring are essential parts of ensuring the sustainability of changes in teacher instructional practices after participating in training. In this study, limited mentoring is not only influenced by the technical aspects of program execution but is also related to limited resources, supervision time, and the high workload of teachers and madrasah leaders (Ewing, 2021). In several madrasahs, academic supervision is still more oriented toward the evaluation of instructional administration rather than continuous professional mentoring. These constraints hinder teachers from optimally internalizing training results into their daily instructional practices.

This research also reveals inconsistencies in the implementation of CPD results by some teachers. In certain situations, teachers begin to apply innovative instructional methods or use digital media after participating in training; however, such implementation is not sustained. Some teachers revert to conventional instructional patterns when supervision or monitoring activities are no longer conducted intensively. This condition indicates that changes in instructional practices are influenced not only by training but also by work culture, teaching habits, and professional environment support in the madrasah (Solehan, 2024). Jin et al. (2021) state that changes in teaching practices are a long-term process influenced by individual motivation, organizational culture, and consistent institutional support. In the context of this research, teachers in a collaborative work environment tend to be better able to maintain changes in instructional practices compared to teachers who work individually without the support of a professional learning community (Haeriah et al., 2025). This demonstrates that the sustainability of CPD implementation is closely linked to the organizational culture and the professional ecosystem within the madrasah environment.



**Figure 1.** CPD Implementation Model in Strengthening Teacher Professionalism

In addition to institutional factors and work culture, this research also found issues regarding motivation and teacher perception toward CPD activities. Some teachers still view CPD as an administrative obligation related to fulfilling institutional demands and career promotion, rather than a long-term professional development need. This condition causes teacher involvement in CPD activities, in some cases, to be more oriented toward fulfilling obligations rather than substantive professional capacity development. Lasito et al. (2023) explain that intrinsic motivation has a significant influence on the success of teacher professional development. In this study, the administrative perception of CPD does not emerge in isolation. However, it is linked to the bureaucracy of education, instructional administrative demands, and teacher performance evaluation patterns that still emphasize document completeness (Adawiyah et al., 2024). This condition affects the process of forming teacher professionalism because professional development tends to be understood as a formal obligation rather than a reflective process and continuous self-development. On the other hand, this research also shows that the CPD evaluation system, which remains administratively oriented, affects the program's effectiveness in increasing teacher professionalism. Guskey (2002) emphasizes that professional development evaluation should not only assess program execution but also its impact on instructional practices and student learning outcomes.

In the context of this study, the limitations of impact-based evaluation cause madrasahs to face difficulties in identifying the effectiveness of CPD programs on changes in teacher professionalism in a more profound way (Akelpas et al., 2025). As a result, several CPD activities run routinely but have not yet fully produced consistent and sustainable changes in instructional practices. Overall, this research demonstrates that CPD implementation in MAN is in a developing process with relatively established institutional program support and structures. Yet, it still faces various problems in its execution. They are also influenced by madrasah organizational culture, institutional policies, teacher workload, supervision patterns, and the teachers' own perceptions of professional development. These findings reveal that teacher professional development in madrasahs is a complex process influenced by the interaction between individual,

institutional, and educational culture factors (Solehan, 2024). Furthermore, the context of the madrasah as an Islamic educational institution provides its own specific characteristics in CPD implementation because teacher professional development proceeds alongside the cultivation of values, professional ethics, and an Islamic-based institutional culture (Gita et al., 2025).

#### IV. CONCLUSION

This research demonstrates that Continuing Professional Development (CPD) plays a vital role in strengthening teacher professionalism in MAN across West Java, particularly in the aspects of professional knowledge, pedagogical and technical skills, and professional attitudes and behaviors. The execution of CPD through activities such as MGMP, In-House Training (IHT), academic supervision, and technology-based training contributes to shifts in instructional practices, improved reflective abilities, and the development of a collaborative culture within the madrasah environment. Nevertheless, CPD implementation still faces various challenges, such as program planning that is not yet fully based on teacher needs, limited post-training mentoring, inconsistent implementation of training results, and the tendency of some teachers to view CPD as a mere administrative obligation. These conditions indicate that strengthening teacher professionalism through CPD is a gradual process influenced by individual factors, organizational culture, and institutional support from the madrasah. Theoretically, this study reinforces concepts of teacher professional development that emphasize the importance of sustainability, reflection, collaboration, and institutional support. It also expands the discourse by showing that in the madrasah context, CPD is not only about technical and pedagogical competence but is also influenced by institutional culture, Islamic values, and the formation of professional ethics and responsibility. Thus, teacher professional development in madrasahs occurs not only on a competency level but also within the dimensions of values and professional culture that evolve within Islamic educational environments. Practically, the findings highlight the importance of strengthening CPD systems by making them more responsive to teacher needs through Training Need Analysis (TNA), the development of sustainable coaching and mentoring, and program evaluations that focus on instructional impact rather than just administrative compliance. Furthermore, it is essential to foster a professional learning culture within madrasahs so that teachers perceive CPD as a part of self-development and lifelong learning, rather than just a formal requirement. This research also opens opportunities for future studies to examine CPD implementation using quantitative or mixed-methods approaches, including measuring the specific influence of CPD on instructional quality and student learning outcomes.

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