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Community-Based AI Pedagogical Literacy: A Case Study of AI Adoption in Teacher Professional Communities

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ABSTRACT

The rapid development of artificial intelligence (AI), particularly generative AI technologies, has transformed the educational communication ecosystem and reshaped how knowledge is produced, distributed, and interpreted in learning environments. In the context, teachers play important roles not only as users of technology but also as mediators of knowledge and facilitators of pedagogical communication in digitally mediated classrooms. Although research on AI literacy in education continues to grow, many studies emphasize students' competencies or institutional technology adoption, while limited attention has been given to how teachers collectively interpret and adopt AI within professional learning communities. To position this study within the existing research landscape, a bibliometric analysis using Publish or Perish and VOSviewer was conducted with the keywords "community-bases learning" and "digital literacy teachers." The mapping highlights the central role of community interaction in connecting teachers' digital literacy development with pedagogical practices. This study adopts a qualitative case study approach focusing on members of the Persatuan Guru Nahdlatul Ulama (Pergunu) in Bekasi City who participated as beneficiaries in the "AI Ready" AI literacy initiative. Data were collected through in-depth interviews, focus group-discussion, and documentation of training activities. The study examines how teachers interpret, negotiate, and collaboratively integrate AI tools into teaching practices, highlighting the role of professional communities in foresting meaningful AI adoption in education.

1. Introduction

The development of artificial intelligence (AI) technology has expanded into nearly every sector of society, including education. This transformation has not only created unprecedented opportunities for pedagogical innovation but has also introduced significant challenges related to ethical use, algorithmic bias, and the risks of misinformation (OECD, 2021). In this context, teachers are no longer merely technology users; they have evolved into mediators of meaning and curators of information within an increasingly complex digital learning ecosystem.

In Indonesia, the need for AI literacy among educators has become increasingly urgent. Numerous studies have demonstrated the benefits of AI in education. AI has been shown to enhance classroom learning effectiveness (Juliani, 2026), assist teachers in developing instructional materials (Sri Mulyani, 2025), and foster students' independent, goal-oriented, and sustainable learning habits (Tarigan, 2025). Nevertheless, the implementation of AI remains uneven across Indonesian schools.

Limitations in human resources and digital infrastructure continue to be the primary barriers (Turnando, 2025), resulting in a significant technological adoption gap between urban and rural schools.

This disparity has encouraged various stakeholders to take an active role in strengthening teachers' AI literacy. One notable initiative is the AI Ready program, organized by the Indonesian Anti-Hoax Society (Masyarakat Anti Fitnah Indonesia/Mafindo) in collaboration with the ASEAN Foundation and Google.org. Since its establishment in 2016, Mafindo has been recognized as a leading non-profit organization dedicated to combating hoaxes and misinformation in Indonesia. Building upon its longstanding commitment to digital literacy, Mafindo has expanded its mission to include AI literacy training. Through the AI Ready program, Mafindo provides foundational AI education to diverse community groups via a Learning Management System (LMS) consisting of four core modules: AI Fundamentals, AI Usage and Implementation, AI Ethics, Privacy and Security, and Teaching About AI.

One of the target communities of this program is the Nahdlatul Ulama Teachers Association (Persatuan Guru Nahdlatul Ulama/Pergunu) of Bekasi City. Pergunu is an autonomous body under Nahdlatul Ulama (NU) that serves as a professional organization for teachers, with the mandate to advance the teaching profession, enhance teachers' competencies, and contribute to society, as stipulated in Law No. 14 of 2005 on Teachers and Lecturers. As a faith-based professional teachers' community, Pergunu Bekasi provides a distinctive and meaningful context for examining how AI literacy is developed and adopted.

Previous studies on AI literacy training for teachers have been extensive. Thapa (2025) emphasized the importance of community-based digital competency programs for educators, arguing that AI can simplify complex content and facilitate collaborative learning. Webber (2026) found that the effective integration of AI in education requires a combination of sound pedagogical design, ethical considerations, and active community engagement. Tregila (2025) demonstrated that AI literacy training increases educators' willingness to adopt AI technologies in their teaching practices. Similarly, Anugrah (2026) reported that AI can reduce teachers' workloads, highlighting the need for educational institutions to design relevant and context-sensitive AI training programs.

However, these studies primarily focus on the importance of AI training rather than examining how such training shapes AI literacy within professional teacher communities, particularly in developing-country contexts. This study seeks to address this gap by investigating how the AI Ready program implemented by Mafindo fosters the AI pedagogical literacy of Pergunu Bekasi members and to what extent their competencies develop after participating in the program.

To answer this research question, the study adopts the AI Literacy Framework developed by Long and Magerko (2020) as its analytical framework. This framework defines AI literacy as a set of competencies that enables individuals to critically evaluate AI technologies, communicate and collaborate effectively with AI systems, and use AI as a tool in both professional and everyday contexts. Long and Magerko identify 16 AI literacy competencies, organized around four fundamental questions: What is AI? What can AI do? How does AI work? and How should AI be used?

Tabel 1. AI Literacy Framework: 16 Kompetensi Literasi AI (Long & Magerko, 2020)

Basic Dimension	Competency	Expected Competency
What's AI?	**K-1**	Membedakan teknologi AI dengan non-AI
	K-2	Menganalisis perbedaan kecerdasan manusia, hewan, dan mesin
	K-3	Mengenali cara pengembangan kecerdasan mesin
	K-4	Membedakan AI umum dan AI sempit (narrow AI)

Basic Dimension	Competency	Expected Competency
What can AI do?	**K-5**	Mengidentifikasi masalah yang dapat dan tidak dapat diselesaikan AI
	K-6	Membayangkan dampak penggunaan AI di masa depan
How's AI Working? (Thinking)	**K-7**	Memahami representasi pengetahuan dalam sistem AI
	K-8	Menjelaskan cara komputer melakukan penalaran dan pengambilan keputusan
How's AI working? (Machine Learning)	**K-9**	Memahami peran manusia dalam memprogram dan menyempurnakan sistem AI
	K-10	Memahami ketergantungan sistem AI pada intervensi manusia
	K-11	Memahami cara AI membaca dan memproses data
	K-12	Memahami bahwa komputer belajar dari data yang tersedia
	K-13	Memahami pengaruh data pelatihan terhadap hasil algoritma
How's AI working? (Robotik)	**K-14**	Memahami kemampuan fisik sistem AI dalam bentuk robot
	K-15	Memahami peran AI dalam menciptakan sensor perangkat
How AI should be used?	**K-16**	Mengidentifikasi isu etika AI: privasi, bias, misinformasi, akuntabilitas

Source: Diadaptasi dari Long & Magerko (2020)

This study aims to: (1) analyze how the AI Ready program by Mafindo provides understanding to Pergunu Bekasi members regarding AI technology; (2) examine how the AI literacy of Pergunu Bekasi members is formed after participating in the program; and (3) formulate a contextual AI Pedagogical Literacy model based on a professional teacher community in Indonesia.

2. Method

2.1 Paradigma and Approach

This research uses a constructivist paradigm, which views social reality as something shaped through the experiences, interactions, and meanings of the subjects involved. This paradigm refers to Creswell's (2014) view, which states that in qualitative research, reality is subjectively constructed by individuals through social interactions. The approach used is descriptive qualitative with a case study method. This choice allows for in-depth exploration of phenomena within a concrete and specific context, aligning with the view of Nasarudin et al. (2024) that case studies are used to explore phenomena in real-world settings in depth.

The object of this research is the process of developing AI literacy among Pergunu Bekasi members after participating in the AI Ready program from Mafindo. The unit of analysis for this research includes learning practices and participants' interpretations of the AI literacy competencies acquired through the AI Ready program, particularly those related to the four main module categories: AI fundamentals, AI use, AI ethics and safety, and teaching about AI.

2.2 Research Informant

Informants were selected using purposive sampling, a technique based on specific considerations to ensure they meet the research needs (Bouncken et al., 2025). Informants were selected because they were directly involved in the AI Ready program at Pergunu Bekasi, understood the training process, had participated in AI Ready materials through the LMS, and were willing to provide in-depth information.

Tabel 2. Profil Informan Penelitian

Nama Informan	Peran	Instansi	Relevansi
Nur Hikmah Wijaya	Fasilitator / Guru SD & Kepsek	Mafindo – Pergunu Bekasi	Fasilitator program AI Ready sekaligus anggota Pergunu; memberikan perspektif ganda penyelenggara dan peserta
Happy Ika Melvina	Fasilitator / Guru SD	Mafindo – Pergunu Bekasi	Fasilitator aktif; menggambarkan adopsi AI dan perubahan praktik pedagogis setelah pelatihan
Ade Vera Lusiana	Peserta Pelatihan / Guru SD	Pergunu Kota Bekasi	Peserta program AI Ready; merefleksikan pengalaman belajar mandiri melalui LMS dan penerapan AI di kelas

Source: Data primer penelitian (2026)

Substantively, the informants represent two groups: elements of facilitators/program organizers (Nur Hikmah Wijaya and Happy Ika Melvina) and elements of training participants from the teacher community (Ade Vera Lusiana). The combination of these two perspectives allows for strong triangulation of research findings.

2.3 Data Collection Techniques

Data collection was conducted using three main techniques. First, in-depth semi-structured interviews to explore informants' experiences, understandings, and reflections regarding the AI Ready program. This technique was chosen because it allowed researchers to guide their questions with direction while still allowing informants to explain their experiences broadly and in-depth (Morrisan, 2019). Second, documentation of the AI Ready modules, LMS structure, learning topics, and other supporting data was collected. Third, observations of the program context, including training activities and participants' involvement in the LMS-based learning process, were conducted.

2.4 Data Analysis Stages

Data analysis used thematic analysis developed by Braun and Clarke (2006). This framework was chosen because it is suitable for identifying patterns of meaning, experiences, and forms of understanding that emerge from qualitative data. The following is the analytical process flow:

Diagram 1. Alur Analisis Tematik (Braun & Clarke, 2006)

1	**Pengumpulan Data** Wawancara semi-terstruktur (3 informan) + dokumentasi modul LMS AI Ready + observasi interaksi pelatihan

▼

2	**Transkripsi & Familiarisasi** Transkrip wawancara dibaca berulang; catatan reflektif awal disusun
▼	
3	**Pengkodean Awal (Initial Coding)** Identifikasi segmen data yang relevan dengan fokus riset: pengalaman belajar, pemahaman AI, hambatan, etika
▼	
4	**Pengelompokan Tema** Kode-kode dikelompokkan ke 4 tema besar sesuai modul AI Ready & AI Literacy Framework (Long & Magerko, 2020)
▼	
5	**Review & Refinement Tema** Triangulasi sumber (fasilitator vs peserta) dan triangulasi metode (wawancara vs dokumen LMS)
▼	
6	**Penyajian Naratif-Deskriptif** Temuan disajikan dengan kutipan wawancara, tabel, dan diagram model konseptual

Sumber: Diadaptasi dari Braun & Clarke (2006)

2.5 Data Validity

The validity of the data was tested through source triangulation and method triangulation. Source triangulation was carried out by comparing information from facilitators and training participants to see the consistency of explanations regarding program implementation and learning outcomes. Method triangulation was carried out by matching interview results with program documents, LMS module contents, and other supporting data. This validation framework strengthens the accuracy of researchers' interpretations of informants' experiences.

3. Result and Discussion

3.1. Program AI Ready: Konteks dan Implementasi

Mafindo's AI Ready program was designed as a civil society-based literacy intervention that addresses the urgent need to improve the digital capacity of Indonesians, particularly in the education sector. The program ran from late 2025 to 2026, reaching various target groups, including schoolchildren, university students, teachers, and parents. In the Bekasi Pergunu community, training was conducted in a blended learning format: an initial face-to-face session for introduction and orientation, followed by independent study via an LMS (Learning Management System), and online discussions guided by Mafindo facilitators.

The LMS used contains 25 modules organized into four main categories. The AI Fundamentals module covers the basic concepts of AI, how it differs from other technologies, and the history of AI development. The AI Usage & Implementation module discusses various AI applications in everyday life and professional practice, including prompt engineering techniques. The AI Ethics, Privacy & Security module examines ethical issues in AI use, personal data protection, and the risks of

misinformation generated by AI. The Teaching About AI module equips teachers with the competencies to integrate AI into pedagogical practices and teach AI literacy to students.

Nur Hikmah Wijaya, a facilitator and elementary school principal in Bekasi, described her experience: the program uses a blended learning model, where the first meeting is face-to-face with the facilitator, followed by participants being guided through the provided LMS. This pattern creates a social foundation for subsequent independent learning, in line with the principles of community-based learning, which position the community as a space for social interaction and knowledge production (KAK Penelitian, 2025).

3.2 Dimensi Fundamental AI: Memahami Apa Itu AI

One of the most significant achievements of the AI Ready program is the ability of participants to concretely identify the difference between AI-generated content and human-generated content (K-1 Competency). Nur Hikmah Wijaya shows sharp analytical skills in this regard:

"The output produced by AI and non-AI, in terms of language, is usually more standard. There are special characteristics because the lesson plans made by AI have symbols. Even in Word there are two lines in the table. If it is made by humans, we type on one line. But if it is from AI, the outside and inside display two lines."

This diagnostic ability is very relevant in the context as a school principal who needs to evaluate lesson plans made by teachers. This shows that AI literacy is not only theoretical, but is internalized in everyday professional practice.

Regarding the differentiation of human versus machine intelligence (K-2), Ade Vera Lusiana developed a nuanced understanding that is quite deep:

"Human intelligence is natural, natural, has its ups and downs. Artificial intelligence is never tired. We ask for anything at any time, never complain. But for humans, if we are not in the mood, we ask anything that is not what we expected."

This understanding reflects a mature epistemological awareness of the fundamental differences between human cognition and machine computing. This is in line with the discourse in critical algorithm studies which emphasizes the importance of critical awareness of the capabilities and limitations of AI systems (Diakopoulos, 2016).

In terms of anticipating the future impact of AI (K-6), Ade Vera Lusiana uses a very appropriate metaphor:

"AI is like two sharp blades. One side can help, inspire and make things easier for us. On the other side, if we don't understand the concepts and content, we can fall into the trap of AI."

This metaphor not only shows an understanding of the potential and risks of AI, but also reflects a constructively critical attitude toward the technology—an indicator of high AI literacy. This is in accordance with the findings of Thapa (2025) who emphasizes the importance of critical skills in using AI.

3.3 Dimensi Penggunaan dan Implementasi AI

One of the richest findings from this research is the informants' understanding of the central role of prompt engineering in determining the quality of AI output (K-9, K-10). Ade Vera Lusiana articulated it very clearly:

"It depends on the prompt and our own understanding. If we don't understand the concept, don't understand the content, in the end we only receive raw information from AI. If the prompt we write is detailed, according to what we want, and structured, then AI can help us optimally."

This understanding shows the internalization of an important concept in AI literacy: AI is not an oracle that provides absolute truth, but rather a system that relies heavily on the quality of human input. This is a direct representation of Competencies K-9 (understanding the role of humans in

improving AI systems) and K-10 (understanding AI's dependence on human intervention) in Long and Magerko's (2020) framework.

In concrete practice of using AI for learning, Nur Hikmah Wijaya describes the very diverse uses of AI among elementary school teachers: making lesson plans, exam questions (multiple choice, fill-in-the-blanks, descriptions), teaching modules, learning videos, school jingles, and coding-based educational games. He explained:

"In a matter of seconds the question is ready. We enter KI or TP, in a matter of seconds the question is finished. We can use AI to create learning videos, school jingles, games that have an educational element."

The breadth of AI applications shows that the AI Ready program has succeeded in opening participants' horizons about the potential of AI beyond conventional use. This is in line with Anugrah's (2026) opinion that AI has been proven to reduce teacher workload significantly.

Happy Ika Melvina, a facilitator who taught elementary school for 20 years, described a real transformation in her teaching practice after attending the training:

"Before attending the training, I only studied AI to the extent of my own abilities. But when I attended the training at Mafindo, I discovered that there are various types of AI, there is a correct sentence structure for prompts, there are ethics. So I know more."

Happy Ika Melvina's experience illustrates the transition from intuitive and ad hoc use of AI to more structured, reflective and ethical use. This is the essence of what is meant by AI pedagogical literacy: not just being able to use AI, but using it intelligently and responsibly in educational contexts (Long & Magerko, 2020).

3.4 Dimensi Etika dan Keamanan AI

The AI Ready program has proven successful in building critical awareness of the ethical dimensions of AI among participants—a valuable achievement considering that this dimension is often overlooked in purely productivity-oriented technology training. Happy Ika Melvina describes a fundamental change in understanding:

"Before the training, I didn't know that there were ethics in using AI. After the training, I learned that there are ethics in using AI, some are dangerous for us, some are wrong. Before the training, I just used AI."

This statement indicates a significant paradigmatic shift: from passive and uncritical users of AI to ethically aware users. This ethical awareness is directly relevant to the K-16 Competencies in the AI Literacy Framework which includes the ability to identify AI ethical issues such as personal data protection, misinformation, and accountability (Long & Magerko, 2020).

Issues of plagiarism and misinformation receive special attention in training. Happy Ika Melvina explains the mechanism for unintentional plagiarism in the use of AI:

"If we ask AI for help to write a scientific article, sometimes it's a copy of whose journal it is from, whose book it is from. So we really have to paraphrase the AI's results so that there is no plagiarism."

This understanding indicates high AI literacy: participants not only use AI but also understand how AI produces outputs and the ethical risks that come with it. This is in accordance with the Media and Information Literacy (MIL) framework which emphasizes the ability to critically evaluate digital content (Buckingham, 2003).

3.5 Dimensi Pengajaran Tentang AI

The fourth and unique dimension of the AI Ready program is the Teaching About AI module, which equips teachers with the ability to not only use AI themselves, but also teach AI literacy to their students. The ability to detect AI use by students is one of the competencies that develops organically among participants. Ade Vera Lusiana describes:

"Elementary students who use AI usually give answers that deviate far from the discussion. If they don't use AI, the answer is not far from A plus or A minus, but still at A. But if you use AI, it could be B, A to P. Because I am also an AI user, I know the characteristics."

These diagnostic capabilities are especially valuable in educational contexts where academic integrity is increasingly being questioned. More importantly, Ade Vera demonstrated an understanding that the solution is not a ban on the use of AI, but rather ensuring conceptual understanding precedes the use of AI. This reflects a mature pedagogical approach.

Nur Hikmah Wijaya emphasized a dimension that cannot be replaced by AI in education—the human touch in pedagogy:

"It seems that a personal approach cannot be replaced by AI. For administration, I'm sure AI can do it. But apperception—we ask the children first, how are they, why are they frowning—we can't detect that because the algorithm hasn't reached that side yet."

This insight is of great pedagogical and philosophical importance. He identified a fundamental limit of AI in education: AI excels at cognitive tasks that can be coded, but it cannot replace the empathy, emotional connection, and contextual sensitivity that are at the heart of good teaching. This aligns with Webber's (2026) argument that the effectiveness of AI in education requires a combination of pedagogical design and community engagement centered on human values.

3.6 Hambatan dan Tantangan

This research also identified the obstacles faced by participants in participating in the program. The main obstacle is not the difficulty of understanding the material—but rather the limited time. Ade Vera Lusiana, who completed 25 modules while teaching, explained:

"Actually, it's not difficult and can be completed quickly if we focus. But because we are busy with teaching and so on, the training ends up being discontinued. However, if we focus, it can be finished in one day."

This time barrier is a structural obstacle commonly faced by professional teachers in participating in capacity development. Ade Vera's strategy of working on modules between teaching breaks is a creative adaptation that needs to be considered in the design of future teacher training programs.

In addition to time constraints, participants are also faced with the paradox of AI dependency: the easier it is to use AI, the greater the risk of losing the ability to think independently. Ade Vera describes:

"If we don't understand the concept, don't understand the content, we end up just accepting the raw material from AI. Well, that's a mistake."

This paradox reflects a fundamental tension in educational AI adoption: between the efficiency that AI offers and the need to maintain the cognitive autonomy of teachers and students. Awareness of this paradox—which emerged from the participants' practical experience, not simply the facilitator's instructions—demonstrates the depth of AI literacy that developed through the program.

3.7 Model AI Pedagogical Literacy Berbasis Komunitas

Based on thematic analysis of all data, this research formulates the Community-Based AI Pedagogical Literacy (AI-PLBKom) model as a theoretical and practical contribution. This model visualizes how pedagogical AI literacy is constructed through four interconnected components:

Diagram 2. Model AI Pedagogical Literacy Berbasis Komunitas (AI-PLBKom

INPUT	PROSES	MEDIASI	OUTPUT
Program AI Ready	Belajar Berbasis LMS	Komunitas Pergunu	AI Pedagogical Literacy

• Modul 4 kategori (LMS) • Fasilitator Mafindo • Pre-test / Post-test	• Belajar mandiri • Diskusi kelompok online • Refleksi dan praktik	• Interaksi sosial • Kolaborasi profesional • Norma dan nilai komunitas	• Kompetensi K-1 s.d. K-16 • Kesadaran etika AI • Adopsi pedagogis AI

Sumber: Rumusan peneliti berdasarkan temuan lapangan (2026)

This model explains that pedagogical AI literacy is not formed solely from exposure to module content (INPUT), but rather through a social, reflective and contextual learning process (PROCESS), which is mediated by professional community ties (MEDIATION), resulting in AI literacy competencies that are multidimensional and integrated in pedagogical practice (OUTPUT). This community mediation process is what differentiates this model from conventional technology training approaches.

The findings of this research strengthen the research's main thesis that teacher AI literacy is not a linear individual achievement, but is socially constructed within the professional community (Creswell, 2014). The Pergunu Bekasi community serves as a space for knowledge exchange, validation of experiences, and construction of norms for ethical use of AI—a function that cannot be replicated by individual-based training programs.

3.8 Ringkasan Temuan Tematik

Tabel 3. Ringkasan Temuan Tematik Penelitian

Tema	Sub-tema / Kode	Indikator / Kutipan Kunci
Pemahaman Dasar AI (K-1 – K-6)	Identifikasi teknologi AI vs non-AI	*"Saya tahu RPP yang dibuat AI karena ada simbol-simbol tertentu yang otomatis ter-copy" (Hikmah)*
	Diferensiasi kecerdasan manusia vs mesin	*"AI tidak ada capeknya; kita minta apa saja jam berapa saja bisa" (Ade Vera)*
	Imajinasi dampak AI masa depan	*"AI seperti dua mata pisau yang tajam" (Ade Vera)*
Penggunaan & Implementasi AI (K-9 – K-13)	Peran data dan prompt dalam kerja AI	*"Tergantung prompt dan pemahaman kita sendiri" (Ade Vera)*
	Pembuatan RPP, soal, modul ajar dengan AI	*"Dalam hitungan detik soal jadi, dan bisa kita sesuaikan sendiri" (Hikmah)*
	Kolaborasi AI-Manusia dalam pembelajaran	*"AI membantu mencari ide aktivitas menarik tapi saya yang memutuskan" (Happy)*
Etika & Keamanan AI (K-16)	Kesadaran plagiasi dan misinformasi	*"Harus diparafrasa supaya tidak ada plagiarisme" (Happy)*
	Privasi data dan batas penggunaan AI	*"Perlu paham konsep dulu, jangan menerima mentah-mentah dari AI" (Ade Vera)*

Tema	Sub-tema / Kode	Indikator / Kutipan Kunci
Teaching About AI (K-7, K-8)	Mengajarkan literasi AI kepada siswa	*"Siswa SD yang pakai AI tulisannya beda, jauh dari kemampuan normalnya" (Ade Vera)*
	Pendekatan personal yang tidak bisa digantikan AI	*"Sentuhan manusia—apersepsi, empati—tidak bisa digantikan algoritma" (Hikmah)*

Sumber: Olah data primer penelitian, 2026

4. Conclusion

This research confirms that the AI Ready program organized by Mafindo has succeeded in building a foundation for multidimensional AI pedagogical literacy among Pergunu Bekasi members. Findings show that participants developed competencies that cover the entire spectrum of Long and Magerko's (2020) AI Literacy Framework: from the ability to identify AI technology in real contexts, to understanding the working mechanisms of data-based AI and prompts, to critical awareness of the ethical dimensions of AI use.

Three main findings of the study deserve emphasis. First, teachers' AI literacy develops organically through daily professional practice—not just from exposure to theoretical modules—so that the ability to detect AI content, design effective prompts, and evaluate AI output is internalized into real pedagogical competencies. Second, awareness of AI ethics—particularly regarding plagiarism, misinformation, and AI limitations—proved to be one of the most meaningful gains from the program, changing participants' orientation from passive AI users to critical and responsible users. Third, participants correctly identified the dimensions of education that AI cannot replace: the human touch, empathy, and a personal approach to the teaching and learning process.

Theoretically, this research contributes by formulating a Community-Based AI Pedagogical Literacy (AI-PLBKom) model which emphasizes that teacher AI literacy is a social construction mediated by the professional community, not a linear individual achievement. This model integrates the perspectives of constructivism (Creswell, 2014), community-based learning, and the AI Literacy Framework (Long & Magerko, 2020) in one contextual analytical framework for Indonesia.

Practically, this research recommends: (1) strengthening the AI ethics module in similar training programs, considering that this dimension has the most impact felt by participants; (2) program design that accommodates teachers' time constraints through flexible microlearning and independent learning approaches; (3) utilizing the structure of professional teacher communities (such as Pergunu, PGRI, and similar organizations) as strategic social infrastructure for the dissemination of AI literacy; and (4) development of advanced programs that do not stop at literacy in using AI, but encourage teachers to become AI literacy educators for their students.

The limitations of this research lie in the limited range of informants (three informants) and the specific geographical context (Pergunu Bekasi City). Further research with a broader scale, mixed methods, and a more diverse range of teacher communities will strengthen the generalisability of the proposed model.

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