



IDENTIFYING COMPETENCY GAPS TO INFORM PROFESSIONAL DEVELOPMENT FOR PANCASILA EDUCATION TEACHERS



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Abstract

A mismatch between expected and actual teacher competencies in curriculum implementation highlights the need for evidence-based professional development (PD), yet empirical studies examining professional and pedagogical competency gaps among Pancasila Education teachers within MGMP communities remain limited. This study examines the discrepancy between ideal competencies, based on national teacher competency standards (Ministerial Regulation No. 16/2007), and teachers' perceived actual competencies to inform needs-based PD design. Using a descriptive cross-sectional survey design, data were collected from 30 teachers selected through purposive sampling based on active teaching status and MGMP membership. A structured questionnaire was administered, and the data were analysed using gap analysis as a diagnostic tool for identifying PD needs. Results showed that the average gap in pedagogical competence (0.77) slightly exceeded that of professional competence (0.73). The largest gaps were found in civic knowledge content, contextual content selection, deep learning design, and assessment indicator development, whereas ICT use showed the smallest gap (0.60). These findings contribute to the literature on needs-based professional development by identifying priority competency areas that can inform targeted, evidence-based PD planning within teacher professional communities.

INTRODUCTION

Teacher competence is one of the key factors influencing the quality of classroom instruction and student learning outcomes. Current research consistently identifies teachers as among the most influential school-based determinants of student achievement. López-Martín et al. (2023) highlight the meaningful contribution of teacher competencies to achievement, while Engida et al. (2024) and the Organization for Economic Co-operation and Development (OECD, 2025) emphasize that high-quality teaching remains a fundamental driver of improved student learning. Teachers are therefore expected not only to possess adequate subject-matter knowledge but also to demonstrate the pedagogical capacity required to make learning effective and meaningful (Agung, 2021; Susilowati, 2015; Wulandari & Iriani, 2018).

These expectations become even more demanding in the context of Pancasila Education, Indonesia's civic education subject, which emphasizes character formation and Pancasila values. Teachers are responsible not only for transmitting knowledge but also for fostering values, ethics, and civic responsibility that contribute to students' development as informed and responsible citizens (Angraini & Arianto, 2023; Cahyani & Dewi, 2021; Kamilah et al., 2023; Sunaryati et al., 2023). The effectiveness of civic learning, therefore, depends on integrating civic literacy with character building and value formation, realized through participatory, dialogic, and contextually relevant learning experiences (Alscher et al., 2022; Geboers et al., 2013; Wood et al., 2018).

Globally, civic education faces growing challenges associated with declining civic participation, increasing social polarisation, and weakening trust in public institutions among



younger generations (Borhan, 2025). These developments have intensified expectations that schools foster civic competence, democratic engagement, and social cohesion in increasingly complex social environments (UNESCO, 2021; Wood et al., 2018). In Indonesia, these challenges are compounded by an ongoing curriculum transformation that places greater emphasis on competency-based, contextual, and project-based learning, requiring Pancasila Education teachers not only to master the evolving substance of citizenship education but also to translate the abstract values of Pancasila into contextual, inclusive, and meaningful classroom practices (Kalidjernih & Winarno, 2019; Muchtarom et al., 2023). Together, these developments have heightened the importance of professional and pedagogical competencies as foundations for effective Pancasila Education

However, empirical evidence suggests that many Pancasila Education teachers continue to face difficulties in developing constitutional and civic learning materials, linking civic content to authentic social issues, and facilitating deeper civic understanding among students (Muchtarom et al., 2023; Yuliandari et al., 2024). These challenges extend beyond content mastery to teachers' ability to translate civic knowledge into effective classroom practice and are further compounded by difficulties in responding to evolving curriculum expectations and integrating digital tools into instruction (Yuliandari et al., 2024). Such evidence underscores the need to strengthen teacher competence as a foundation for improving the quality of Pancasila Education in Indonesia.

Professional development (PD) is widely regarded as one of the most appropriate responses to these needs, yet PD programs implemented to date have often adopted a one-size-fits-all approach. In the Indonesian context, most initiatives, such as teacher certification, the Teacher Professional Education program, and fixed-hour training schemes, have focused broadly on strengthening professional and pedagogical competence (Putri et al., 2025; Revina et al., 2023). While these initiatives have improved teachers' professional qualifications and instructional capacity, they have generally focused on competence levels, instructional practices, or program outcomes rather than systematically identifying competency gaps to inform PD design. Consequently, they provide limited guidance on which competencies require priority attention and how professional learning should be differentiated to meet teachers' actual needs.

More fundamentally, prior research has rarely used systematic competency-gap mapping as a basis for program design (Firmansyah et al., 2025). Such mapping remains particularly scarce in Pancasila Education teacher forums, known as Musyawarah Guru Mata Pelajaran (MGMP), despite their role as key settings for teachers' professional development (Yuliandari et al., 2024). This critical gap is highly visible in local teacher professional communities, including the MGMP in Malang, where structured initiatives for diagnostic needs assessment remain limited. As a result, there is limited evidence on how professional and pedagogical learning needs can be systematically identified and prioritized within these local communities.

Addressing this limitation requires a theoretically grounded approach to both identifying and interpreting teacher learning needs. Drawing on Knowles's (1980) andragogical perspective, professional learning should be responsive to adult learners' needs and grounded in authentic problems of practice. This principle is operationalised through the needs-assessment and gap-analysis tradition (Altschuld & Watkins, 2014; Watkins et al.,

2012), which conceptualises needs as discrepancies between current and desired conditions and provides a systematic method for identifying and prioritising competency gaps.

The interpretation of those gaps is then anchored in Shulman's (1986, 1987) content knowledge (PCK) framework, which posits that effective teaching depends on the integration of subject-matter expertise and pedagogical knowledge. In this study, these competencies are examined through the professional and pedagogical domains mandated in the Indonesian educational context, which together reflect the integration of content and pedagogical knowledge emphasized in the PCK framework. Taking together, these perspectives are complementary. Andragogy explains why teachers' learning needs should drive PD; needs assessment provides a method for mapping those needs; and PCK clarifies how the resulting gaps should be interpreted across professional and pedagogical domains. Viewed collectively, these perspectives transform gap identification from a statistical exercise into a diagnostic tool for targeted professional growth.

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By contextualizing this approach within the MGMP framework in Malang, the study contributes to understanding how professional and pedagogical learning needs can be systematically mapped within local teacher professional communities and how competency development in Pancasila Education can be understood through a needs-assessment perspective. In doing so, it demonstrates the value of gap analysis as a practical and theoretically informed approach to evidence-based professional development planning.

The present study, therefore, addresses two main questions: (1) What is the profile of the gap between ideal and actual competencies in the professional and pedagogical domains among Pancasila Education teachers in Malang? and (2) Which competency indicators exhibit the largest gaps and therefore require priority attention in PD design? By providing an empirical basis for setting development priorities, the findings of this study are expected to contribute practically to the MGMP professional community and to policymakers in designing training programs that are more relevant, contextual, and responsive to teachers' actual needs.

METHODS

Research Design

This study employed a quantitative approach using a descriptive cross-sectional survey design to map the gap between the ideal and actual conditions of Pancasila Education teachers' professional and pedagogical competencies. A gap analysis was conducted to identify differences between teachers' perceptions of the importance of each competency indicator (ideal condition) and their perceived current levels of competence (actual

condition). This approach enabled the systematic identification and prioritization of PD needs within the MGMP professional community.

Respondents

The respondents in this study consisted of 30 Pancasila Education teachers who were active members of the MGMP in Malang, East Java. Participants were selected through purposive sampling based on the following criteria: (1) active status as a Pancasila Education teacher and (2) active involvement in the MGMP professional community.

Table 1. Demographic Characteristics of Participants (N = 30)

Characteristic	Category	n	%
Gender	Female	19	63.3
	Male	11	36.7
Age	<24 years	2	6.7
	25–39 years	24	80.0
	40–54 years	4	13.3
Employment Status	Government Contract Teacher	13	43.3
	Civil Servant Teacher	9	30.0
	Non-Permanent Teacher	6	20.0
	Private Foundation Teacher	2	6.7

The study sample comprised 30 teachers, predominantly female (63,3%, n=19) and within the productive age range of 25–39 years (80,0%, n=24). Most were government contract teachers and civil servants, with a smaller proportion being non-permanent and private foundation teachers.

Because the study aimed to identify PD needs within a specific MGMP community rather than estimate population parameters, purposive sampling was considered appropriate. Although the sample size limits broader statistical generalization, the participants represented the core active membership of the local MGMP and were therefore considered sufficient for generating context-specific insights into professional development needs.

Instruments

The instrument was developed based on the teacher competency standards stipulated in the Regulation of the Minister of National Education Number 16 of 2007, which establishes the national standards for teachers' pedagogical and professional competencies in Indonesia. Data were collected using a structured questionnaire consisting of 20 statements: 10 for the professional competency domain (content knowledge, subject-matter understanding, and scientific orientation) and 10 for the pedagogical competency domain (instructional planning, learning strategies, assessment, and technology-supported teaching).

The questionnaire used a five-point Likert scale across two assessment dimensions:

1. Ideal Condition Dimension: Respondents rated the level of importance of each competency indicator, ranging from 1 (very unimportant) to 5 (very important).
2. Actual Condition Dimension: Respondents rated their current level of competency mastery, ranging from 1 (very poor) to 5 (very good).

To ensure content validity and alignment with teacher competency standards in Indonesia, the instrument was reviewed through expert judgment involving 13 specialists,

including experienced teachers, university lecturers, and widyaiswara (professional teacher trainers). Using a structured rubric, each expert independently evaluated every item against three operational criteria: relevance to national teacher competency standards, linguistic clarity, and construct representativeness. Items were revised based on feedback from the review process.

Internal consistency reliability was assessed using Cronbach's alpha separately for the ideal and actual assessment dimensions across all 20 questionnaire items. The reliability coefficient was .961 for the ideal condition dimension and .956 for the actual condition dimension, indicating excellent internal consistency.

Data Collection Procedure

Data collection was conducted in four stages. First, potential participants were identified from the active membership list of the MGMP and invited to participate voluntarily. Second, participants received information regarding the purpose of the study and provided informed consent to participate. Third, respondents completed the questionnaire by assessing both the ideal and actual conditions of each competency indicator. Finally, completed questionnaires were checked for completeness before being coded and prepared for analysis.

Data Analysis Techniques

Data were analyzed using descriptive gap analysis to identify and prioritize competency discrepancies. Consistent with the needs-assessment framework proposed by Altschuld and Watkins (2014), competency needs were conceptualized as gaps between ideal and actual conditions. For each indicator, the gap value was calculated as the difference between the mean scores of the two conditions.

$$Gap = \bar{X}_{ideal} - \bar{X}_{actual}$$

Indicators were ranked according to their gap values, with larger gaps indicating higher priority areas for professional development.

Ethical Considerations

This study followed established ethical principles for educational research, including voluntary participation, informed consent, confidentiality, and anonymity. As the study involved an anonymous, minimal-risk survey of adult participants, formal ethics committee approval was not required under the regulations governing educational research in the study context at the time of data collection. Nevertheless, all procedures complied with recognised ethical standards for research involving human participants.

RESULT AND DISCUSSION

RESULT

This section presents the results of the gap analysis comparing the ideal and actual levels of Pancasila Education teachers' professional and pedagogical competencies in Malang. For each indicator, the gap value was calculated as the difference between the two mean scores. Values closer to zero indicate greater alignment, whereas larger values indicate wider competency discrepancies.

1. Professional Competency Gaps

The descriptive results for the professional competency domain are detailed in Table 2, presenting the ideal and actual mean scores and the resulting gap values across the 10 professional competency indicators.

Table 2. Gap Analysis of Professional Competence

Indicator	Ideal Score	Actual Score	Gap
Teachers understand civic knowledge content	4.73	3.87	0.87
Teachers understand civic disposition	4.77	4.07	0.70
Teachers understand civic skills	4.73	4.00	0.73
Teachers understand the structure of Pancasila Education as a subject.	4.70	3.93	0.77
Teachers understand the concepts underpinning Pancasila Education.	4.67	3.90	0.77
Teachers understand the scientific mindset underpinning Pancasila Education.	4.67	3.87	0.80
Teachers understand the Learning Outcomes of Pancasila Education.	4.67	3.97	0.70
Teachers are able to formulate the Learning Objectives of Pancasila Education.	4.60	3.97	0.63
Teachers are able to design the Learning Objectives Flow of Pancasila Education.	4.60	3.97	0.63
Teachers are able to select learning materials that are appropriate to students' developmental levels.	4.60	3.93	0.67
Mean	4.67	3.95	0.73

Table 2 shows that the mean professional competency gap was 0.73 (ideal = 4.67; actual = 3.95). The largest gap was found in civic knowledge content (0.87), followed by the scientific mindset underpinning Pancasila Education (0.80) and the subject's structure and conceptual foundations (both 0.77). The smallest gaps were found in formulating Learning Objectives and designing the Learning Objectives Flow (both 0.63), followed by selecting learning materials appropriate to students' developmental level (0.67).

2. Pedagogical Competency Gaps

The data for the pedagogical competency domain are compiled in Table 3, presenting the ideal and actual mean scores and the resulting gap values across the 10 pedagogical competency indicators.

Table 3. Gap Analysis of Pedagogical Competence

Indicator	Ideal Score	Actual Score	Gap
Teachers are able to select contextual learning content that aligns with students' prior knowledge.	4.70	3.83	0.87
Teachers are able to design learning experiences that promote deep understanding of key concepts.	4.67	3.80	0.87
Teachers are able to develop assessment indicators.	4.60	3.73	0.87
Teachers use ICT in accordance with specific learning objectives.	4.57	3.97	0.60
Teachers use ICT-based learning media, such as instructional videos, Kahoot, Google Classroom, Moodle, and Padlet, to present concepts engagingly.	4.57	3.90	0.67

Indicator	Ideal Score	Actual Score	Gap
Teachers are able to select learning resources that are relevant to students' characteristics.	4.67	3.87	0.80
Teachers are able to connect learning content to students' real-life contexts.	4.67	4.03	0.63
Teachers apply a range of learning strategies creatively in Pancasila Education.	4.67	3.90	0.77
Teachers use appropriate teaching methods (e.g., lectures, group discussions, demonstrations, simulations, case studies, projects, or problem-based learning) to accommodate diverse learning styles.	4.73	3.90	0.83
Teachers understand assessment principles that are appropriate to the characteristics of Pancasila Education.	4.67	3.90	0.77
Mean	4.65	3.88	0.77

As presented in Table 3, the mean pedagogical competency gap was 0.77 (ideal = 4.65; actual = 3.88). The largest gaps were found in three indicators: contextual content selection, deep learning design, and assessment indicator development, each at 0.87. These were followed by teaching methods diversity (0.83) and learning resource selection (0.80). The smallest gap was recorded in ICT use aligned with specific learning objectives (0.60), followed by connecting content to students' real-life contexts (0.63).

3. Comparison of Professional and Pedagogical Domains

This section compares the competency gap results across the professional and pedagogical domains for all 20 indicators, as presented in Figure 1 below.

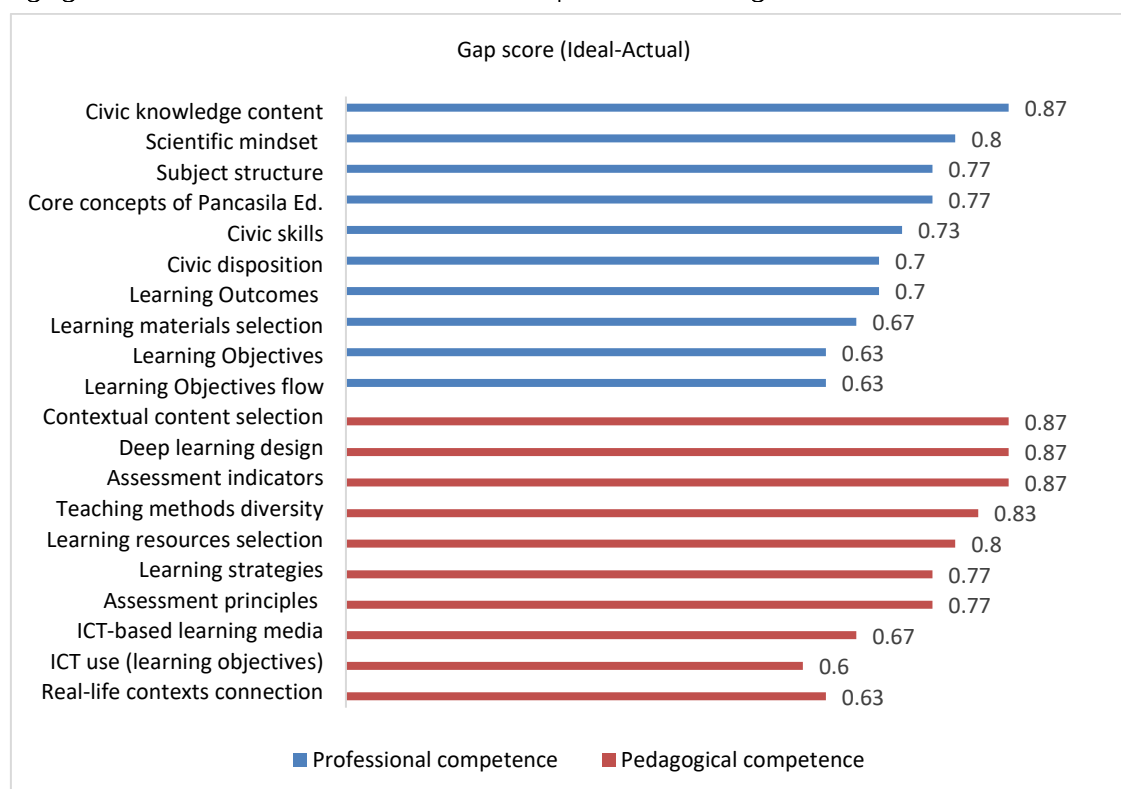


Figure 1. Comparison of competency gap scores across professional and pedagogical domains.

Figure 1 presents the gap scores for all 20 competency indicators across the professional and pedagogical domains, allowing comparison of their relative magnitude.

Overall, the results indicate that competency gaps were present across all indicators, with values ranging from 0.60 to 0.87. The most prominent gaps were concentrated in civic knowledge content, contextual content selection, deep learning design, and assessment indicator development, whereas ICT use aligned with learning objectives showed the smallest gap. This visual summary highlights the priority competency areas that require further attention and serves as the basis for the discussion that follows.

DISCUSSION

Consistent with Knowles's (1980) andragogical framework, the competency gaps identified in this study reflect discrepancies between teachers' ideal and actual competence levels. From a needs assessment perspective (Altschuld & Watkins, 2014; Watkins et al., 2012), these gaps provide an empirical basis for identifying priority areas for professional development. The identified competency gaps are discussed below in relation to existing literature, with particular attention to their implications for PD design.

1. Gaps in Professional Competence

In the domain of professional competence, the largest gaps were found in teachers' understanding of civic knowledge content and the scientific mindset underpinning Pancasila Education as a subject. The size of these gaps suggests that content strengthening may represent an important priority area for professional development. This result is consistent with previous studies showing that Pancasila Education teachers still face constraints in optimally developing constitutional teaching materials, due to both internal and external factors (Muchtaron et al., 2023).

In Pancasila Education, content mastery is not merely a matter of subject-matter accuracy; it also encompasses the teacher's ability to interpret social, political, and ethical issues in a meaningful and pedagogically appropriate way (Kalidjernih & Winarno, 2019). When interpreted through Shulman's (1986) PCK lens, these high gap scores suggest that teachers' foundational content knowledge requires strengthening. Without sufficient epistemic clarity within the discipline, teachers may have difficulty selecting relevant issues, formulating guiding questions, and facilitating substantive classroom discussion, all of which are key components of PCK in Pancasila Education.

This finding is consistent with studies indicating that limited content mastery may hinder teachers' ability to integrate learning content with social dimensions and to guide classroom discourse effectively (Faisal et al., 2025). Similarly, insufficient content knowledge may reduce the quality of guiding questions used in classroom interactions, limiting opportunities for deeper student understanding (Wang et al., 2024).

From an andragogical perspective, addressing these professional gaps represents an important cognitive baseline for any effective PD intervention. PD programs that emphasize advanced instructional strategies without adequate content foundations may have limited impact on classroom practice. Consequently, PD programs should prioritize content enrichment through subject-matter seminars, guided reading of primary civic and constitutional sources, and collegial discussion forums centered on the philosophical, juridical, historical, and sociological foundations of Pancasila Education.

2. Gaps in Pedagogical Competence

The findings suggest that teachers' greatest challenges lie in translating civic content into meaningful learning experiences. The following sections discuss these challenges in greater detail and consider their implications for PD design.

2.1. Capacity to Design Relevant Learning

The largest pedagogical gaps were associated with teachers' ability to select contextual learning content based on students' prior knowledge, design learning experiences that facilitate deep understanding, and use teaching methods that accommodate diverse learning styles. These findings suggest that the main challenge lies not simply in delivering content, but in transforming Pancasila values into learning experiences that are socially relevant, meaningful to students' lives, and capable of fostering deeper civic reasoning.

In the context of Pancasila Education, a weak contextual learning design risks reducing instruction to a normative, textual exercise in which civic values are treated as concepts to be memorized rather than as frameworks for understanding and responding to real social issues. Previous studies consistently indicate that effective civic education requires participatory, active, and meaningful learning experiences (Dharma & Siregar, 2015; Kalidjernih & Winarno, 2019; Ningari, 2022). Such experiences are more likely to support the development of civic competence, political understanding, and civic engagement among students (Alscher et al., 2022; Geboers et al., 2013).

This gap reflects a key dimension of PCK: the transformation of subject knowledge into contextually relevant learning experiences, which Shulman (1986) described as pedagogical adaptation and transformation, represents an important area for development. Moreover, active citizenship learning requires teachers' pedagogical expertise to facilitate critical and transformative learning rather than merely procedural instruction (Wood et al., 2018). However, teachers often struggle to address sensitive or controversial civic issues, leading them to adopt safer, less contextual approaches that may limit students' opportunities to engage with authentic social problems (Cassar et al., 2023).

The concentration of the largest gaps in indicators requiring complex pedagogical judgment, such as contextual content selection and the design of deep learning experiences, suggests that these challenges relate to pedagogical capacity. This interpretation is consistent with evidence showing that discussions of controversial issues become more productive when teachers establish a safe, open, and participatory classroom climate (Wansink et al., 2023). Grounded in Knowles's (1980) andragogy, andragogy, PD within MGMP professional communities should prioritize collaborative, practice-based workshops in which teachers use authentic classroom challenges as the starting point for professional learning, rather than relying on abstract or top-down instructional approaches. To address these challenges, PD should place greater emphasis on helping teachers design contextual learning scenarios, develop strategies that promote deep understanding and civic reasoning, and diversify teaching methods through authentic civic learning experiences.

2.2. Ability to Develop Assessment Indicators

Another major gap in the pedagogical domain was found in teachers' ability to develop assessment indicators. This finding suggests that although teachers recognize the importance of assessment, they still struggle to translate learning objectives into clear, measurable, and usable assessment indicators. In other words, the challenge does not stop at conceptual understanding of assessment but extends to the ability to operationalize learning objectives into concrete performance criteria.

This issue is important because assessment indicators function as a bridge between learning objectives, learning activities, and evidence of student achievement. When indicators are not formulated operationally, assessment is likely to become procedural and

to lose its diagnostic value for improving learning. In the context of Pancasila Education, this issue is even more crucial because many intended outcomes cannot be adequately captured by written tests alone. Instead, teachers need to develop indicators to assess attitudes, ethical reasoning, argumentation, participation, social responsibility, and students' civic dispositions.

This is consistent with evidence that teachers frequently struggle to transfer assessment theory into classroom practice, and that a persistent gap remains between understanding assessment quality and implementing it effectively (Pastore, 2023; Schellekens et al., 2023). A synthesis study also emphasizes that teacher assessment literacy involves the alignment among learning objectives, task quality, assessment criteria, interpretation of results, and instructional follow-up (Shapovalov & Evans, 2022). These findings suggest that PD should provide practice-based assessment support to help teachers translate Learning Outcomes into observable and measurable performance indicators suited to the specific characteristics of Pancasila Education.

2.3. Integration of ICT into Pedagogical Design

A notable pattern in this study was the relatively small gap in the use of ICT for specific learning objectives (0.60), compared with the much larger gap in designing learning experiences that facilitate deep understanding. This pattern suggests that the main challenge lies in integrating technology into pedagogical designs that promote deep learning, rather than in the use of technology itself.

This finding is consistent with the OECD's position that access to technology alone does not automatically improve learning outcomes (Forsström et al., 2025). The effectiveness of technology depends heavily on the quality of pedagogical integration, task design, clarity of instructional purpose, and the way teachers organize classroom learning. The OECD further highlights that technology use that is not strategically designed may become distracting rather than supportive of deeper learning. In this sense, technology should be understood as a tool whose educational value depends on teachers' pedagogical decisions, rather than as a factor that automatically enhances the quality of learning.

This result is also consistent with studies finding that teachers' digital proficiency is above average, whereas their AI-TPACK competence remains at a lower level (Hava & Babayiğit, 2025). Viewed through the TPACK model (Mishra & Koehler, 2006), which extends Shulman's PCK to the integration of technology, these findings suggest that teachers in this community may possess a reasonable level of technological knowledge while continuing to experience challenges in integrating technology with content and pedagogy to support critical civic inquiry. This suggests that technological competence alone may be insufficient for meaningful civic learning without strong integration of content knowledge and pedagogical design. The primary challenge appears to lie not in the use of technology itself, but in leveraging it to support contextual learning, deeper civic understanding, and assessment practices.

3. Theoretical and Methodological Contributions

From a theoretical standpoint, this study contributes to the application of PCK and andragogical perspectives in understanding competency development within civic education. The findings extend the application of PCK in Pancasila Education by demonstrating that competency gaps are concentrated not only in content-related indicators but also in the pedagogical processes required to transform civic knowledge into

meaningful learning experiences. This highlights the importance of addressing teachers' professional and pedagogical learning needs in an integrated manner rather than treating them as separate areas of professional development. From an andragogical perspective, the study reinforces the importance of identifying teachers' perceived learning needs as a foundation for professional development planning, supporting the view that effective adult learning interventions should be grounded in practitioners' actual competency gaps.

Methodologically, this study underscores the diagnostic value of gap analysis for localized teacher professional communities (MGMP). It demonstrates that a localized quantitative needs assessment can provide more actionable information for professional development planning than standard compliance-oriented metrics by identifying specific competency indicators that require priority attention within a particular professional context.

4. Limitations and Future Research

Several limitations should be acknowledged. The study involved 30 teachers from a single MGMP professional community in Malang, selected through purposive sampling, which limits the generalizability of the findings to other regions or broader populations of Pancasila Education teachers. The reliance on self-reported data means that the identified gaps reflect teachers' perceived rather than directly observed competencies and should therefore be interpreted as such. Additionally, the descriptive cross-sectional design captures perceptions of competency at a single point in time and cannot account for changes in teacher competence over time. Furthermore, contextual factors that may contribute to the observed gaps, such as school-level support, curriculum policy, and teacher motivation, were not systematically examined.

Future research could address these limitations by incorporating larger, more diverse samples and multiple sources of evidence, such as classroom observations, peer assessments, and teaching artifact analyses, as well as longitudinal designs to examine changes in competency development over time. Studies are also needed to investigate the effectiveness of professional development interventions in addressing the priority competency gaps identified in this study, particularly those related to civic content knowledge, contextual learning design, deep learning practices, and assessment literacy. In addition, further research should explore how organizational and policy-related factors, including school support systems, MGMP collaboration practices, and curriculum implementation contexts, influence the development of professional and pedagogical competencies among Pancasila Education teachers.

CONCLUSION

This study identified gaps between the ideal and actual competencies of Pancasila Education teachers in Malang City. Overall, these discrepancies were evident across all professional and pedagogical competency indicators, with the mean pedagogical competency gap (0.77) slightly exceeding the professional competency gap (0.73). More specifically, the largest discrepancies were concentrated in four indicators: civic knowledge content, contextual content selection, deep learning design, and assessment indicator development. These findings suggest that teachers' professional development needs primarily concern strengthening content mastery, instructional design, and assessment practices.

From a theoretical perspective, the findings support the use of PCK as a framework for understanding competency development among Pancasila Education teachers, highlighting the importance of integrating content knowledge and pedagogical capacity. The findings also underscore the value of needs assessment as a foundation for evidence-based professional development planning. From a practical perspective, the results indicate the need for PD programs within MGMP communities that integrate content mastery enhancement through academic seminars, the study of primary civic and constitutional sources, and peer discussion forums; contextual instructional design that promotes deeper understanding and civic reasoning; and the strengthening of assessment literacy. This emphasis is important because technological proficiency alone is insufficient to support meaningful civic learning without the strong integration of content knowledge and pedagogical design. Therefore, the priority areas identified in this study can serve as an empirical basis for designing more targeted professional development programs that are aligned with the needs of Pancasila Education teachers.

The findings should be interpreted in light of several limitations. The study involved 30 teachers from a single MGMP community in Malang, selected through purposive sampling, which limits the generalisability of the findings. The use of self-reported data also means that the identified discrepancies reflect perceived rather than directly observed competencies, while the cross-sectional design captures perceptions of competency at only one point in time. Future research should address these limitations by involving larger, more diverse samples and incorporating multiple sources of evidence, such as classroom observations, peer assessments, and analyses of teaching artifacts. Future studies should also employ longitudinal designs to examine changes in teacher competencies over time and evaluate the effectiveness of professional development interventions in addressing the priority needs identified in this study.

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Declarations

Author Contribution Statement

Rahma Tri Wulandari: Conceptualization, methodology, data collection, statistical analysis, and original draft preparation. Pedro Jurado de los Santos: Research design, supervision, and critical review of the manuscript. Antonio Navio Gámez: Data interpretation, critical revisions, and final approval for publication. All authors have read and agreed to the published version of the manuscript.

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Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request. Access is restricted to ensure the anonymity and confidentiality of the participants.

Declaration of Interests Statement

The authors declare no competing interests.

AI Use Statement

During the preparation of this manuscript, the authors used ChatGPT (OpenAI) to assist with language editing and improving the clarity of the text. All AI-generated suggestions were critically reviewed and

verified against the original study data and cited sources. The authors retain full responsibility for the accuracy and integrity of the final manuscript.

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REFERENCES

- Agung, D. A. G. (2021). Pembelajaran sejarah di era revolusi industri 4.0. *Jurnal Pendidikan Sejarah Indonesia*, 4(1), 1. <https://doi.org/10.17977/um0330v4i1p1-8>
- Agung, D. A. G. (2021). Pembelajaran sejarah di era revolusi industri 4.0. *Jurnal Pendidikan Sejarah Indonesia*, 4(1), 1. <https://doi.org/10.17977/um0330v4i1p1-8>
- Alscher, P., Ludewig, U., & McElvany, N. (2022). Civic education, teaching quality and students' willingness to participate in political and civic life: Political interest and knowledge as mediators. *Journal of Youth and Adolescence*, 51(10), 1886–1900. <https://doi.org/10.1007/s10964-022-01639-9>
- Altschuld, J. W., & Watkins, R. (2014). A primer on needs assessment: More than 40 years of research and practice. *New Directions for Evaluation*, 114, 5–18. <https://doi.org/10.1002/ev.20099>
- Angraini, R. D., & Arianto, J. (2023). Penanaman nilai karakter kedisiplinan melalui kegiatan ekstrakurikuler di sekolah. *Jurnal Kewarganegaraan*, 20(1), 63–76. <https://doi.org/10.24114/jk.v20i1.43810>
- Borhan, H. (2025). Civic education as a pathway to inclusive societies: Exploring the role of education in fostering civic and social engagement. In *OECD Publishing* (Issue 326). <https://doi.org/10.1787/3f128be8-en>
- Cahyani, K., & Dewi, D. A. (2021). Peran guru pendidikan kewarganegaraan dalam membentuk karakter peserta didik agar menciptakan siswa yang berkualitas. *Jurnal Pendidikan Kewarganegaraan Undiksha*, 9(2), 268–281. <https://ejournal.undiksha.ac.id/index.php/JJPP/article/view/34131> (accessed on 12 June 2026)
- Cassar, C., Oosterheert, I., & Meijer, P. C. (2023). Why teachers address unplanned controversial issues in the classroom. *Theory and Research in Social Education*, 51(2), 233–263. <https://doi.org/10.1080/00933104.2022.2163948>
- Dharma, S., & Siregar, R. (2015). Membangun pengalaman belajar kewarganegaraan melalui model pembelajaran project citizen pada siswa. *Jurnal Pendidikan Ilmu-Ilmu Sosial*, 7(1), 100. <https://doi.org/10.24114/jupiis.v7i1.2303>
- Engida, M. A., Iyasu, A. S., & Fentie, Y. M. (2024). Impact of teaching quality on student achievement: Student evidence. *Frontiers in Education*, 9(2010). <https://doi.org/10.3389/educ.2024.1367317>
- Faisal, Nurhayati, B., Arifin, A. N., & Martin, S. N. (2025). Challenges and strategies in teaching socioscientific issues: A study of Indonesian pre-service Biology teachers. *Asia-Pacific Science Education*, 11(2), 398–431. <https://doi.org/10.1163/23641177-bja10098>
- Firmansyah, A., Desnora, B., Pratama, A., Muazza, M., & Aprillitzavivayarti, A. (2025). Empowering educators through CPD: Enhancing teacher competencies in the era of the Independent curriculum. *Indonesian Journal of Education and Social Studies (IJESS)*, 04(02), 143–152. <http://doi.org/10.33650/ijess.v4i2.12776>
- Forsström, S., Njå, M., Munthe, E., Houldsworth, L., & Álvarez-Galván, J.-L. (2025). Key findings and integration strategies on the impact of digital technologies on students' learning: Results from a literature review (Issue 336). <https://dx.doi.org/10.1787/ab309c32-en>
- Geboers, E., Geijsel, F., Admiraal, W., & Dam, G. ten. (2013). Review of the effects of citizenship education. *Educational Research Review*, 9, 158–173. <https://doi.org/10.1016/j.edurev.2012.02.001>
- Hava, K., & Babayiğit, Ö. (2025). Exploring the relationship between teachers' competencies in AI-TPACK and digital proficiency. *Education and Information Technologies*, 30(3), 3491–3508.

<https://doi.org/10.1007/s10639-024-12939-x>

- Kalidjernih, F. K., & Winarno. (2019). Dari terminologi ke substansi pendidikan kewarganegaraan: Implikasi terhadap revitalisasi Pancasila. *Jurnal Civics: Media Kajian Kewarganegaraan*, 16(1), 38–50. <https://doi.org/10.21831/jc.v16i1.25311>
- Kamilah, A. I., Hidayat, O. S., & Hasanah, U. (2023). Pengembangan media buku cerita digital pada pelajaran PPKn sebagai upaya meningkatkan moral siswa sekolah dasar. *JURNAL BASICEDU*, 7(2), 1367–1374. <https://doi.org/10.31004/basicedu.v7i2.5129>
- Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*. In Cambridge Association Press. <https://pdfs.semanticscholar.org/8948/296248bbf58415cbd21b36a3e4b37b9c08b1.pdf> 4 (accessed on 12 March 2026)
- López-Martín, E., Gutiérrez-de-Rozas, B., González-Benito, A. M., & Expósito-Casas, E. (2023). Why do teachers matter? A meta-analytic review of how teacher characteristics and competencies affect students' academic achievement. *International Journal of Educational Research*, 120(May). <https://doi.org/10.1016/j.ijer.2023.102199>
- Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record: The Voice of Scholarship in Education*, 108(6), 1017–1054. <https://doi.org/10.1177/016146810610800610>
- Muchtarom, M., Suryaningsih, A., Yuliandari, E., Winarno, Al-Rasyid, M., & Rusnaini. (2023). Pancasila and civic education teachers' professionalism in developing constitutional studies teaching materials. *Proceedings of the 6th International Conference on Learning Innovation and Quality Education (ICLIQE 2022)*, 1021–1032. https://doi.org/10.2991/978-2-38476-114-2_94
- Ningari, W. F. (2022). Peningkatan hasil belajar pendidikan kewarganegaraan melalui metode pembelajaran kontekstual and learning. *Didactica: Jurnal Kajian Pendidikan Dan Pembelajaran*, 2(1), 31–37. <https://doi.org/10.56393/didactica.v2i1.1141>
- OECD. (2025). *Unlocking high-quality teaching*. <https://doi.org/10.1787/f5b82176-en>
- Pastore, S. (2023). Teacher assessment literacy: A systematic review. *Frontiers in Education*, 8. <https://doi.org/10.3389/educ.2023.1217167>
- Putri, R. K. A., Kusaeri, K., & Rusdiyah, E. F. (2025). The impact of large-scale continuing professional development on teacher professionalism in Indonesia and china: A systematic literature review. *AL-ISHLAH: Jurnal Pendidikan*, 17(3), 3990–4006. <https://doi.org/10.35445/alishlah.v17i3.7542>
- Revina, S., Pramana, R. P., Bjork, C., & Suryadarma, D. (2023). Replacing the old with the new: Long-term issues of teacher professional development reforms in Indonesia. *Asian Education and Development Studies*, 12(4–5), 262–274. <https://doi.org/10.1108/AEDS-12-2022-0148>
- Schellekens, L. H., Kremer, W. D. J., Van der Schaaf, M. F., Van der Vleuten, C. P. M., & Bok, H. G. J. (2023). Between theory and practice: Educators' perceptions on assessment quality criteria and its impact on student learning. *Frontiers in Education*, 8(June), 1–9. <https://doi.org/10.3389/educ.2023.1147213>
- Shapovalov, Y. A., & Evans, C. M. (2022). Research synthesis: Developing the educator assessment literacy professional learning screener. In *The National Center for the Improvement of Educational Assessment, Inc.* (Number August). <https://www.nciea.org/wp-content/uploads/2023/04/Research-Synthesis-and-Tool-Final.pdf> (accessed on 16 October 2025)
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. *American Educational Research Association*, 15(2), 4–14. <http://dx.doi.org/10.3102/0013189X015002004>
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–23. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Sunaryati, T., Safitri, I., Lestari, N. A., & Putri, J. (2023). Pentingnya pendidikan Kewarganegaraan dalam menanamkan moral terhadap peserta didik di Sekolah Dasar. *JURNAL BASICEDU*, 7(5), 2834–2840. <https://doi.org/10.31004/basicedu.v7i5.5983>
- Susilowati. (2015). Analisis pedagogical content knowledge guru IPA SMP kelas VIII dalam implementasi kurikulum 2013. *Jurnal Pendidikan Matematika Dan Sains*, 3(1), 72–78. <https://journal.uny.ac.id/index.php/jpms/article/view/7238> (accessed on 10 October 2025)
- UNESCO. (2021). *Reimagining our futures together: A new social contract for education*.

<https://doi.org/10.54675/ASRB4722>

- Wang, J., Wang, Y., Kashef, S. S., & Moore, Y. (2024). Quantitative measurement of pre-service teachers' competency of questioning in scaffolding students' science learning. *Research in Science Education*, 54(5), 933–955. <https://doi.org/10.1007/s11165-024-10168-3>
- Wansink, G.-J. B., Mol, H., Kortekaas, J., & Mainhard, T. (2023). Discussing controversial issues in the classroom: Exploring students' safety perceptions and their willingness to participate. *Teaching and Teacher Education*, 125. <https://doi.org/10.1016/j.tate.2023.104044>
- Watkins, R., West Meiers, M., & Visser, Y. L. (2012). A guide to assessing needs: Tools for collecting information, making decisions, and achieving development results. In *The Trainer's Handbook*. The World Bank. <http://documents.worldbank.org/curated/en/644051468148177268> (accessed on 12 June 2026)
- Wood, B. E., Taylor, R., Atkins, R., & Johnston, M. (2018). Pedagogies for active citizenship: Learning through affective and cognitive domains for deeper democratic engagement. *Teaching and Teacher Education*, 75, 259–267. <https://doi.org/10.1016/j.tate.2018.07.007>
- Wulandari, M. R., & Iriani, A. (2018). Pengembangan modul pelatihan pedagogical content knowledge (PCK) dalam meningkatkan kompetensi profesional dan kompetensi pedagogik guru Matematika SMP. *Kelola: Jurnal Manajemen Pendidikan*, 5(2), 177–189. <https://doi.org/10.24246/j.jk.2018.v5.i2.p177-189>
- Yuliandari, E., Muhtarom, M., Rasyid, M. A. R., Raharjo, R., & Widiatmaka, P. (2024). Teacher competence: Development of Pancasila Education teaching materials based on the Merdeka Curriculum in the society 5.0 era. *Al-Ishlah: Jurnal Pendidikan*, 16(4), 5277–5288. <https://doi.org/10.35445/alishlah.v16i4.6075>