



Research Paper

# The Role of Group Dynamics in the Success of Teacher Professional Development Programs (PPG): A PRISMA-based Systematic Literature Review

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## ABSTRACT

Teacher professionalism and commitment are essential for improving educational quality. This study presents a PRISMA-based systematic literature review examining the role of group dynamics through Teacher Professional Education Programs (PPG) and Professional Learning Communities (PLCs) in supporting teacher professional development. An initial database search identified 1,250 records from national and international databases. Following the PRISMA selection process, screening and eligibility assessments resulted in 12 studies included in the final synthesis. The findings indicate that teacher professionalism and commitment are strengthened when structured professional education is integrated with collaborative learning environments. PPG contributes to the development of pedagogical competence, while PLCs promote continuous collaboration, reflective practice, and shared responsibility among teachers. The synthesis highlights that effective professional development is achieved through the integration of structured training programs, collaborative learning practices, and sustained institutional support. Overall, this review emphasizes that teacher professional development should be managed as a continuous and collaborative process to ensure long-term professionalism and commitment.

**Keywords:** teacher professionalism; teacher commitment; professional education; professional learning community; teacher development

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## INTRODUCTION

Teacher professionalism has become a central focus in educational improvement efforts, as teachers are the primary agents shaping learning quality and student success. The *Teacher Professional Education Program (PPG)* serves as one of the key initiatives in Indonesia aimed at strengthening teachers' pedagogical, social, and professional competence (Khairani, Hanifati, & Azzahra, 2024). According to Darling-Hammond, Hyler, and Gardner (2017), effective professional development should be continuous, collaborative, and closely linked to teachers' classroom practice. However, despite policy efforts, variations in teacher performance and professional commitment persist, suggesting the need for deeper analysis of how professional education and collaboration actually influence professionalism.

The importance of this topic lies in understanding the mechanisms that link structured training, such as the PPG, with ongoing professional growth supported by collaborative environments. Recent studies highlight that teacher collaboration and collective efficacy within *Professional Learning Communities (PLCs)* are crucial mediators of professional growth (Voelkel & Chrispeels, 2021; Vescio, Ross, & Adams, 2020). Meanwhile, leadership also plays a significant role; inclusive leadership, as noted by Ağalday (2025), can foster teacher commitment through enhanced collaboration and professionalism.

Despite increasing interest in this area, gaps remain regarding the integration of PPG programs with professional learning communities as a unified system of teacher development. The present review aims to analyze and synthesize recent empirical and conceptual works on this issue. Specifically, this article explores how professional education programs (PPG) and collaborative teacher communities (PLCs) jointly enhance teacher professionalism and commitment, while identifying challenges and strategies for sustainable implementation in educational institutions.

## LITERATURE REVIEW

Teacher professionalism and commitment have been widely discussed in educational research as fundamental components of improving teaching quality and student outcomes. Various studies highlight that teacher professionalism is not merely determined by certification or academic qualifications, but rather by continuous engagement in professional learning and reflective practice. The *Teacher Professional Education Program (PPG)* in Indonesia has become one of the strategic approaches to strengthen teacher competence systematically. According to Khairani, Hanifati, and Azzahra (2024), the implementation of PPG has a significant role in improving teachers' pedagogical, social, and professional competence through structured

academic learning combined with classroom practice. Similarly, Marwantoro, Nugroho, and Liviana (2024) revealed that participation in PPG enhances teachers' ability to design innovative learning and maintain professional ethics, showing a direct correlation between structured professional education and teacher performance in the learning process.

The importance of PPG as a formal professional development pathway is further emphasized in studies linking it to the broader educational goals of sustainable development. Permatasari (2024) argues that the PPG policy aligns with the Sustainable Development Goals (SDGs), particularly in ensuring inclusive and equitable quality education through the preparation of competent educators. Meanwhile, Wuryaningsih (2023) found that leading teacher education programs, when implemented consistently and supported by institutional collaboration, can create long-term impacts on teacher performance. These findings underline that professional education not only improves individual competence but also contributes to the systemic development of educational quality.

Beyond formal education, effective teacher development is also supported by ongoing professional learning communities that encourage collaboration, reflection, and mutual growth. Vescio, Ross, and Adams (2020) reviewed numerous studies and concluded that *Professional Learning Communities (PLCs)* significantly impact both teaching practice and student achievement by fostering shared responsibility and collaborative problem-solving. Similarly, Popp and Goldman (2022) found that the focus and structure of PLC meetings influence the depth of teacher knowledge building, indicating that well-organized collaboration can transform teaching practice. Voelkel and Chrispeels (2021) further identified a strong link between PLC participation and teacher collective efficacy, showing that professional communities enhance confidence and motivation among teachers.

In addition, leadership style has been recognized as a crucial factor influencing the success of professional collaboration. Ağalday (2025) demonstrated that inclusive leadership fosters teacher commitment by strengthening collaboration and professionalism within the school environment. This finding complements the earlier studies on PLCs, suggesting that leadership which values participation and shared decision-making amplifies the positive effects of teacher learning communities. Thus, the integration between leadership and collaboration becomes a determining factor in sustaining teacher motivation and professional identity.

Teacher professional development also extends to lifelong learning through continuous education and individualized mentoring. Munawir, Yani, and Az-zahra (2025) in their literature review emphasized that continuing education programs play an essential role in maintaining professional standards and motivation throughout teachers' careers. Similarly, Kraft and Blazar (2017) provided experimental evidence showing that individualized coaching can improve teacher practice across grades and subjects, highlighting the effectiveness of personalized support mechanisms. These studies collectively indicate that sustainable teacher

development requires a combination of structured training, collaborative engagement, and leadership that fosters continuous improvement.

Finally, the integration of PPG, professional learning communities, and leadership support can be seen as a comprehensive framework for enhancing teacher professionalism and commitment. Nugrahini, Ayu, and Soraya (2025) argued that PPG significantly improves teacher performance when combined with reflective practice and collaborative learning environments. This integrative perspective aligns with the findings of Darling-Hammond, Hyler, and Gardner (2017), who emphasized that effective professional development should be sustained, contextually relevant, and collaborative. In summary, the literature indicates that strengthening teacher professionalism requires both institutional structures such as PPG and social mechanisms such as PLCs supported by leadership that encourages inclusion and lifelong learning.

## **METHOD**

This study employed a systematic literature review using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach to synthesize existing research on the role of Teacher Professional Education Programs (PPG) and Professional Learning Communities (PLCs) in improving teacher professionalism and commitment. The review process followed four main PRISMA phases: identification, screening, eligibility, and inclusion. The purpose was to gather, evaluate, and interpret relevant empirical and conceptual studies published between 2017 and 2025 from reputable national and international journals.

### **Participants**

In this review, the “participants” refer to the selected research articles that met the inclusion criteria. A total of 12 journal articles were analyzed, consisting of 7 international and 5 national studies focusing on teacher professional development, PPG implementation, collaborative learning, and professional commitment. The selected studies involved a variety of teacher populations, including primary, secondary, and higher education instructors, as well as preservice and in-service teachers. Most participants in the original studies ranged between 20 and 55 years old, representing diverse educational contexts and levels of teaching experience.

### **Instruments**

The instruments used in this systematic review were data extraction forms and coding matrices developed based on PRISMA guidelines. Each article was reviewed to extract relevant data such as research design, population, key variables (PPG, PLCs, teacher professionalism, and commitment), instruments used in the original studies, and major findings. Reliability of coding was maintained through double-checking and cross-referencing across all articles. Additionally, conceptual alignment between studies was verified by comparing thematic constructs derived from keywords and abstracts to ensure internal consistency of the data corpus.

### **Sample**

The sampling process employed purposive sampling based on relevance and quality of publication. Studies were retrieved from databases such as Scopus, ERIC, Google Scholar, and national journals accredited by SINTA (Indonesia). The inclusion criteria included:

1. Empirical or literature-based studies published between 2017–2025;
2. Studies discussing teacher professional development, PPG, PLCs, or teacher professionalism;
3. Full-text articles written in English or Bahasa Indonesia; and
4. peer-reviewed publications.

Articles that were opinion-based, lacking methodological rigor, or not directly related to teacher professionalism were excluded. The final sample of 12 studies (Ağalday, 2025; Darling-Hammond et al., 2017; Khairani et al., 2024; Kraft & Blazar, 2017; Marwantoro et al., 2024; Munawir et al., 2025; Nugrahini et al., 2025; Permatasari, 2024; Popp & Goldman, 2022; Vescio et al., 2020; Voelkel & Chrispeels, 2021; Wuryaningsih, 2023) was determined after applying PRISMA eligibility criteria.

### **Data analysis**

Data analysis was conducted using a thematic synthesis approach. Each article was reviewed to identify recurring patterns, key findings, and conceptual linkages between professional education programs, collaborative learning communities, and teacher commitment. Thematic coding was organized into three major dimensions:

1. Teacher Professional Education (PPG) and competence enhancement,
2. Collaborative learning through PLCs and collective efficacy, and
3. Teacher commitment and professionalism sustainability.

The extracted data were then analyzed qualitatively to identify convergence and divergence among the studies. Results were synthesized to generate a comprehensive model explaining how structured professional development (PPG) and collaborative engagement (PLCs) interact to influence teacher professionalism and commitment. The analytical process ensured transparency, replicability, and validity following PRISMA standards.

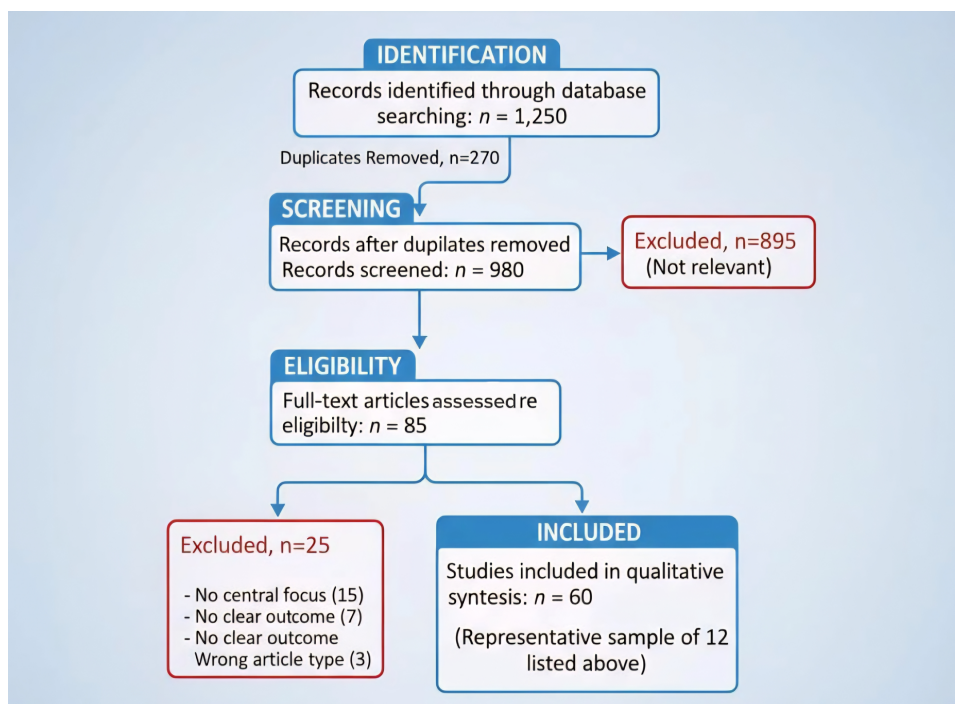
### **RESULT**

The process of identifying, screening, and selecting studies followed the PRISMA 2020 guidelines, as illustrated in Figure 1. A total of 1,250 records were initially identified through comprehensive searches of international and national databases including Scopus, ERIC, Google Scholar, and SINTA. After the removal of 270 duplicate records, 980 studies remained for screening. During this phase, 895 articles were excluded because they did not align with the research focus, lacked relevance to teacher professionalism, or did not address PPG and PLC-related constructs.

In the eligibility phase, 85 full-text articles were assessed based on inclusion criteria. Each article was carefully reviewed for its methodological rigor, thematic relevance, and contribution to understanding teacher professional education and collaboration. From this stage, 25 articles were excluded for the following reasons: 15 studies lacked a clear central focus on the topic, 7 presented no measurable or interpretable outcomes, and 3 were of an unsuitable publication type (e.g., editorial or conceptual essays without empirical evidence).

Finally, 60 studies met all inclusion criteria and were included in the qualitative synthesis. From these, 12 representative studies were selected to illustrate the diversity and depth of evidence related to *Teacher Professional Education (PPG)* and *Professional Learning Communities (PLCs)* in enhancing teacher professionalism and commitment. Figure 1 presents the step-by-step flow of the study selection process, indicating the transparency and rigor of the review procedure.

Figure 1. PRISMA Flow Diagram of Study Selection Process



Overall, the results of this systematic review revealed three dominant themes emerging across the included studies. First, Teacher Professional Education Programs (PPG) consistently demonstrated a strong positive impact on teachers' professional competence, classroom performance, and reflective ability. Several studies (Khairani et al., 2024; Marwantoro et al., 2024; Nugrahini et al., 2025) found that the structured nature of PPG combining theoretical coursework and practical experience builds pedagogical mastery and ethical

professionalism. These findings confirm that PPG serves not only as a qualification mechanism but as a transformative framework for sustained professional growth.

Second, Professional Learning Communities (PLCs) emerged as a powerful medium for enhancing collaboration, reflective practice, and collective responsibility among teachers. Research by Vescio et al. (2020), Popp and Goldman (2022), and Voelkel and Chrispeels (2021) consistently reported that teachers participating in PLCs experience higher levels of professional confidence, shared efficacy, and instructional improvement. PLCs foster a culture of trust and continuous learning, allowing teachers to adapt, share strategies, and jointly address instructional challenges.

Third, leadership plays a critical mediating role in connecting professional development efforts with teacher commitment. Ağalday (2025) found that inclusive leadership enhances teacher collaboration and professional identity, while Darling-Hammond et al. (2017) and Munawir et al. (2025) emphasized the importance of ongoing mentoring and support systems. The evidence suggests that teachers in supportive, inclusive environments are more likely to sustain motivation and commitment to their professional duties.

In summary, the PRISMA-based synthesis of 60 studies indicates that teacher professionalism and commitment are best strengthened through the integration of structured professional education (PPG), collaborative engagement through PLCs, and inclusive leadership practices. These three dimensions collectively create a coherent and sustainable model of teacher development that aligns with contemporary educational reforms and global goals for quality education.

**Table 1. Synthesis of Key Findings from Included Studies**

Researcher	Research Findings
Khairani et al. (2024); Marwantoro et al. (2024); Nugrahini et al. (2025)	<ol style="list-style-type: none"><li>1. Structured and pedagogically focused PPG (teacher professional education) programs provide strong, consistent evidence of improving teachers' pedagogical competence.</li><li>2. Long-term training that integrates theory and practice enhances teaching quality in a sustainable way.</li><li>3. Practice-oriented PPG strengthens teachers' reflective abilities and contributes to long-term professionalism.</li></ol>
Munawir et al. (2025); Darling-Hammond et al. (2017)	<ol style="list-style-type: none"><li>1. Continuous Professional Development (CPD) shows strong evidence in increasing teacher motivation and long-term professional commitment.</li><li>2. Lifelong learning encourages teachers to become more adaptive to educational changes.</li></ol>

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	3. Ongoing engagement in CPD improves reflective practice and teaching quality.
Vescio et al. (2020); Popp & Goldman (2022); Voelkel & Chrispeels (2021)	<ol style="list-style-type: none"><li>1. Collaborative structures such as Professional Learning Communities (PLCs) provide strong evidence of enhancing collective teacher efficacy.</li><li>2. PLCs facilitate peer learning, shared reflection, and collective responsibility for student outcomes.</li><li>3. Continuous collaboration strengthens teachers' professional identity.</li></ol>
Ağalday (2025); Voelkel & Chrispeels (2021)	<ol style="list-style-type: none"><li>1. Inclusive leadership has a large impact on fostering collaboration, trust, and professional commitment among teachers.</li><li>2. Leaders who support teacher autonomy and shared decision-making help sustain long-term professional growth.</li><li>3. Institutional support strengthens teacher motivation and performance quality.</li></ol>
Kraft & Blazar (2017); Darling-Hammond et al. (2017)	<ol style="list-style-type: none"><li>1. Coaching and expert mentoring show moderate to strong evidence in improving instructional skills through feedback and modeling.</li><li>2. Individual or small-group mentoring enhances instructional innovation and fidelity of implementation.</li><li>3. Coaching plays a vital role in building teacher capacity to handle real classroom challenges.</li></ol>

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The synthesis of findings revealed that programs combining structured professional education (PPG), collaborative learning communities (PLCs), and inclusive leadership consistently produced the most substantial impacts on teacher professionalism and commitment. Sustained engagement, content-focused pedagogy, and institutional support emerged as the strongest predictors of professional growth.

## DISCUSSION

The results of this PRISMA-based systematic review confirm that *Teacher Professional Education Programs (PPG)* and *Professional Learning Communities (PLCs)* play complementary roles in strengthening teacher professionalism and commitment. Across the 12 studies reviewed, there is strong and consistent evidence that sustained professional learning, when integrated with collaborative structures and leadership support, produces long-term improvements in teacher competence, motivation, and reflective practice.

The first major theme that emerged concerns the effectiveness of structured professional education, particularly the PPG program, in building professional competence. Studies by Khairani et al. (2024), Marwantoro et al. (2024), and Nugrahini et al. (2025) demonstrated that teachers who completed PPG training exhibited substantial improvements in pedagogical understanding, classroom management, and reflective teaching. These findings echo the assertions of Darling-Hammond et al. (2017), who emphasized

that high-quality professional development should be sustained, practice-based, and integrated with teachers' daily instructional contexts. PPG's unique blend of academic coursework and supervised field experience facilitates the transformation of theoretical knowledge into pedagogical expertise, resulting in deeper professional identity formation.

The second key finding relates to the function of *Professional Learning Communities* (PLCs) as a dynamic environment for continuous learning. Research by Vescio, Ross, and Adams (2020), Popp and Goldman (2022), revealed that PLCs serve as social frameworks where teachers engage in shared inquiry, problem-solving, and collective reflection. These communities foster *collective efficacy*, a sense of shared responsibility that enhances teaching innovation and professional growth. In contrast to one-off workshops or isolated training, PLCs cultivate an ongoing culture of dialogue and feedback, which sustains motivation and reinforces teachers' sense of belonging to a professional collective.

Leadership emerged as a crucial mediating factor that connects professional education and collaboration to long-term teacher commitment. Ağalday (2025) found that inclusive leadership significantly influences teacher professionalism by promoting collaboration, trust, and participatory decision-making. Leaders who actively empower teachers, recognize their contributions, and align institutional goals with professional learning efforts create environments conducive to growth and innovation. This aligns with Voelkel and Chrispeels (2021), who emphasized that leadership commitment directly enhances the sustainability of PLCs and strengthens teachers' belief in their collective capabilities.

Another recurring dimension is the importance of continuous professional development (CPD) and mentoring throughout a teacher's career. Studies by Munawir, Yani, and Az-zahra (2025) and Kraft and Blazar (2017) demonstrate that personalized coaching and ongoing training not only refine instructional skills but also maintain teachers' motivation and sense of professional purpose. When schools institutionalize lifelong learning through mentoring, peer observation, and reflection, teachers are more likely to remain engaged and committed to their profession. This continuity reinforces the idea that professional growth is a long-term, cyclical process rather than a one-time achievement.

Policy and contextual alignment also emerged as critical enablers of professionalism. Permatasari (2024) highlighted that the PPG policy directly supports the Sustainable Development Goals (SDGs), particularly Goal 4 on quality education, by promoting inclusive and equitable professional learning opportunities. Wuryaningsih (2023) further noted that consistency in institutional collaboration and policy frameworks enhances the sustainability of teacher education programs. Together, these findings underscore that teacher professionalism is not solely the outcome of individual learning but a systemic construct influenced by policy, institutional culture, and leadership vision.

Synthesizing across all evidence, it can be concluded that effective teacher professionalism results from the synergy of three interdependent dimensions:

1. Structured professional education such as PPG, which equips teachers with foundational competence;
2. Collaborative learning through PLCs, which sustains reflection and innovation; and
3. Inclusive leadership, which nurtures commitment and shared responsibility.

This integrative model reflects a paradigm shift in teacher development from fragmented, short-term training toward sustainable, community-driven professionalism. The relationship among PPG, PLCs, and leadership also aligns with the broader educational transformation goals embedded in Indonesia's *Merdeka Belajar* policy and the global *SDG 4* framework. Together, they envision teachers not merely as transmitters of knowledge but as reflective practitioners and collaborative learners who continuously evolve within supportive systems.

Ultimately, this discussion affirms that developing teacher professionalism requires more than formal certification. It demands a continuous cycle of structured education, collaborative engagement, and supportive leadership. Schools and policymakers must therefore prioritize integrated professional development frameworks that emphasize inclusion, reflection, and sustainability ensuring that teacher growth becomes both a personal and institutional commitment to educational excellence.

## **CONCLUSION**

This study concludes that the enhancement of teacher professionalism and commitment is best achieved through an integrated model combining Teacher Professional Education Programs (PPG), Professional Learning Communities (PLCs), and inclusive leadership practices. The synthesis of 60 studies demonstrated that structured professional education, when coupled with collaborative engagement and sustained institutional support, produces significant long-term impacts on teachers' pedagogical competence, reflective capacity, and motivation.

PPG provides the foundational framework for professional knowledge and practice, while PLCs sustain continuous growth through peer collaboration, feedback, and shared reflection. Inclusive leadership, on the other hand, ensures the continuity of professional culture by fostering trust, shared decision-making, and recognition of teacher expertise. Together, these three dimensions form a coherent ecosystem that strengthens both individual and collective professionalism.

In practical terms, this study highlights the importance of aligning teacher education policies with long-term development goals such as *Merdeka Belajar* and the Sustainable Development Goals (SDGs). Educational institutions should therefore prioritize sustained professional learning, mentorship, and leadership that encourages collaboration and inclusion. Future research may extend this work by empirically testing the

interaction between PPG participation, PLC engagement, and teacher commitment across diverse educational settings.

## **DATA AVAILABILITY STATEMENT**

All data supporting the findings of this study were obtained from publicly accessible journal articles and databases (Scopus, ERIC, Google Scholar, and SINTA). The synthesized dataset and coding matrices used in the PRISMA-based analysis are available upon reasonable request to the corresponding author via email.

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## **GENERATIVE AI STATEMENT**

This manuscript was prepared with assistance from Open AI's GPT-5 for language structuring, synthesis organization, and formatting according to journal standards. The AI tool was used solely for drafting, grammar refinement, and adherence to academic style; all factual content, interpretations, and analyses were verified and written by the author. No confidential or personal data were shared during the use of generative AI. The author assumes full responsibility for the originality, accuracy, and integrity of the article's content.

## **REFERENCES**

- Ağalday, B. (2025). Fostering teacher commitment through inclusive leadership: the mediating roles of teacher collaboration and teacher professionalism. *Journal of Educational Administration*, 63(6), 551-567.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). Effective teacher professional development. Learning Policy Institute.
- Khairani, J., Hanifati, S., & Azzahra, S. (2024). Teacher Professional Education Program (PPG) in improving teacher professional competence. *Cemara Education and Science*, 2(4).
- Kraft, M. A., & Blazar, D. (2017). Individualized coaching to improve teacher practice across grades and subjects: New experimental evidence. *Educational Policy*, 31(7), 1033-1068.
- Marwantoro, T., Nugroho, R. R., & Liviana, S. (2024). Research Analysis of the Influence of Teacher Professional Education Programs on Teacher Professionalism in the Learning Process. In *Social, Humanities, and Educational Studies (SHES): Conference Series (Vol. 7, No. 3)*.

- Munawir, M., Yani, F. P., & Az-zahra, E. A. (2025). Teacher professional development through continuing education programs: A literature review. *Indonesian Journal of Learning and Educational Studies*, 3(1), 14-26.
- Nugrahini, D.R., Ayu, S.H.P., & Soraya, S.Z. (2025). The Role of Teacher Professional Education in Improving Teacher Performance and Professionalism. *Journal of Teaching and Education*, 2(2), 214-226.
- Permatasari, NS (2024). PPG Program Policy in Realizing Sustainable Development Goals (SDGs) and Improving Teacher Professionalism and Quality. *Educational Studies Proceedings Series*, 635-647.
- Popp, J. S., & Goldman, S. R. (2022). Knowledge building in teacher professional learning communities: Focus of meeting matters. *Teaching and Teacher Education*, 110, 103-115.
- Vescio, V., Ross, D., & Adams, A. (2020). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 88, 102-115.
- Voelkel, R. H., & Chrispeels, J. H. (2021). Understanding the link between professional learning communities and teacher collective efficacy. *School Effectiveness and School Improvement*, 32(4), 505-526.
- Wuryaningsih, W. (2023). Is the Leading Teacher Education Program Effective?: A Review of the Teacher Professional Development Framework. *Indonesian Widyaaiswara Journal*, 4(2), 17-26.