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Learning Experience Through Project-Based Learning to Strengthen Pre-Service Teachers' Professionalism

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Abstract

Teacher professionalism is widely recognized as a multidimensional construct encompassing pedagogical competence, ethical responsibility, reflective capacity, collaborative engagement, and professional identity formation. However, teacher education programs frequently emphasize theoretical instruction over authentic professional practice, resulting in a gap between conceptual understanding and practical readiness. This study explores how learning experiences structured through Project-Based Learning (PjBL) strengthen pre-service teachers' professionalism. This research employed a qualitative case study design grounded in an interpretivist paradigm. Participants were 36 pre-service teachers from the English Education Department of Universitas Muhammadiyah Ponorogo, with complementary perspectives from students at UIN Kiai Ageng Muhammad Besari Ponorogo. Data were collected through open-ended questionnaires and semi-structured interviews and analyzed using the interactive qualitative model of Miles, Huberman, and Saldaña. Findings reveal that PjBL fosters professionalism across five interconnected dimensions: cognitive (instructional design and assessment literacy), practical (teaching performance and classroom management), social (collaborative competence and professional communication), reflective (critical self-evaluation), and identity (professional commitment and self-perception as a teacher). The most transformative stages were project planning, teaching simulation, presentation, and structured reflection. Challenges such as time management and performance anxiety functioned as developmental tensions that stimulated resilience and adaptive growth. The study concludes that PjBL operates not merely as an instructional strategy but as a professional formation ecosystem that bridges theory and practice. Its integration within teacher education programs provides a holistic pathway for cultivating adaptive, reflective, and confident future educators.

INTRODUCTION

The transformation of contemporary education has significantly redefined expectations placed upon teachers. Diversity, technological integration, interdisciplinary demands, and accountability systems increasingly characterize classrooms. Teachers are no longer positioned solely as transmitters of knowledge but as facilitators of learning, designers of meaningful instructional experiences, collaborators within professional communities, and reflective practitioners capable of adapting to evolving educational contexts. Within this landscape, teacher professionalism has become a foundational concern in academic discourse.

Professionalism in teaching extends beyond formal certification or mastery of subject content. It involves pedagogical expertise, ethical responsibility, commitment to student development, capacity for reflection, collaborative engagement, and sustained professional growth. Thus, professionalism must be understood as dynamic and developmental rather than static or credential-based.

Despite this recognition, tensions remain within teacher education programs. Many programs articulate professional standards in policy documents and curricula; however, instructional delivery frequently remains lecture-oriented. Pre-service teachers may engage deeply with theoretical frameworks yet encounter limited opportunities to enact professional roles in authentic or simulated contexts. As a result, they may graduate with conceptual knowledge but insufficient experiential grounding.

This disjunction between theory and practice has long been identified as a central challenge in teacher preparation. The issue is not merely technical but epistemological: how is professional knowledge constructed? If professional competence emerges through situated practice, then learning environments must be intentionally designed to simulate or approximate authentic professional responsibilities.

Experience-based pedagogies offer a promising response to this challenge. Experiential approaches position learners as active constructors of knowledge through engagement in meaningful tasks, structured reflection, and iterative improvement. Within teacher education, experiential models allow pre-service teachers to rehearse instructional design, classroom facilitation, assessment construction, and professional communication.

Project-Based Learning (PjBL) represents one such experiential framework. By organizing learning around sustained, authentic projects, PjBL encourages inquiry, collaboration, public presentation, and reflection. In teacher education contexts, projects often involve lesson planning, instructional media development, microteaching simulations, and reflective documentation. Through these processes, pre-service teachers do not merely study teaching; they practice it within guided environments.

Although numerous studies report that PjBL enhances engagement and critical thinking, fewer investigations examine how it contributes holistically to multidimensional teacher professionalism. This study, therefore, seeks to explore how structured PjBL experiences shape professional growth among pre-service teachers.

The guiding research question is:

Q: How does Project-Based Learning, framed as experience-based learning, contribute to strengthening the multidimensional professionalism of pre-service teachers?.

LITERATURE REVIEW

Teacher Professionalism as a Dynamic and Multidimensional Construct

Teacher professionalism has evolved from a narrow focus on certification and subject-matter competence toward a broader conceptualization encompassing knowledge, ethics, autonomy, collaboration, and identity. Contemporary scholarship emphasizes that professionalism is not a static status achieved through formal qualification but a dynamic process constructed through practice, reflection, and social interaction.

Professionalism involves pedagogical competence, which includes instructional planning, classroom management, and assessment literacy. However, competence alone does not define professional status. Scholars argue that professionalism also entails moral commitment, responsibility toward learners, engagement in collegial dialogue, and continuous improvement. Thus, professionalism integrates technical expertise with ethical orientation and reflective awareness.

Recent theoretical discussions distinguish between managerial professionalism and democratic professionalism. Managerial perspectives emphasize accountability, performance indicators, and standardization. In contrast, democratic professionalism highlights autonomy, collaborative inquiry, and ethical responsiveness. Teacher education programs must therefore balance skill development with the cultivation of critical and reflective capacities.

Professional identity forms an essential dimension within this broader framework. Identity refers to how individuals perceive themselves in relation to professional roles. For pre-service teachers, identity formation involves negotiating personal beliefs, prior experiences, institutional expectations, and pedagogical knowledge. Identity is constructed dialogically through participation in professional practices rather than acquired solely through coursework. Therefore, any pedagogical approach aimed at strengthening teacher professionalism must address cognitive, practical, social, reflective, and identity-based dimensions simultaneously.

Experiential Learning and the Construction of Professional Knowledge

Experiential learning theory provides a foundational lens for understanding professional formation. Knowledge is constructed through cycles of concrete experience, reflective observation, abstract conceptualization, and active experimentation. Within teacher education, this cycle translates into planning instruction, implementing it, evaluating outcomes, and refining practice. Professional competence develops when theoretical principles are tested within practical contexts. Without experiential engagement, pedagogical knowledge may remain inert. Experiential models emphasize that learning becomes meaningful when learners confront authentic challenges requiring decision-making and problem-solving.

Importantly, experiential learning also supports identity construction. When pre-service teachers assume instructional roles, they begin to internalize professional dispositions. Repeated practice strengthens self-efficacy and confidence, reinforcing identity formation. Project-Based Learning aligns closely with experiential learning principles. PjBL requires sustained engagement in authentic tasks, iterative revision, and reflective evaluation. Through these processes, knowledge becomes embodied and contextualized rather than abstract.

Social Constructivism and Collaborative Professional Development

Social constructivist theory posits that knowledge emerges through social interaction and shared meaning-making. Professional learning, therefore, occurs not only individually but

collaboratively within communities of practice. Teacher professionalism is deeply embedded in collegial collaboration. In real school contexts, teachers engage in curriculum planning, peer observation, and professional dialogue. Therefore, teacher education should simulate such collaborative environments to prepare students for professional realities.

Through dialogue and negotiation, pre-service teachers articulate pedagogical reasoning, confront alternative perspectives, and refine understanding. Social interaction fosters cognitive elaboration and critical thinking. Moreover, collaborative engagement supports the development of communication competence, conflict management skills, and shared accountability. Project-Based Learning operationalizes social constructivism by structuring tasks that require collective inquiry and co-construction of outputs. Group-based instructional design projects mirror authentic professional collaboration.

Reflective Practice as Core Professional Competence

Reflective practice constitutes a cornerstone of teacher professionalism. Reflection enables practitioners to analyze instructional decisions, evaluate effectiveness, and adjust strategies. Rather than viewing teaching as routine implementation, reflective professionals treat classroom events as opportunities for inquiry. Reflection operates at multiple levels. Technical reflection focuses on methods and classroom management. Practical reflection examines underlying assumptions and contextual factors. Critical reflection interrogates ethical implications and social justice concerns. Effective teacher education programs cultivate all three levels.

Structured reflection promotes metacognitive awareness, allowing teachers to identify strengths and areas for improvement. Reflection also contributes to emotional regulation by reframing mistakes as learning opportunities. Over time, reflective habits become internalized, supporting lifelong professional growth. PjBL embeds reflection systematically within its cycle. After planning and implementation, participants evaluate outcomes and receive feedback. Such structured reflection institutionalizes professional inquiry practices.

Professional Identity Formation in Teacher Education

Professional identity has emerged as a central construct in teacher education research. Identity is not fixed but negotiated through participation in professional activities. It involves integration of beliefs, values, competence, and self-perception. Mastery experiences, social recognition, and reflective processing influence identity formation. Successful enactment of teaching tasks enhances self-efficacy, reinforcing a sense of identity as capable educators. Peer and lecturer feedback also shape identity by validating competence or highlighting areas for growth.

Importantly, identity formation requires authentic engagement. When pre-service teachers assume roles resembling real teaching responsibilities, they internalize professional norms. Identity develops gradually through repeated enactment and reflection. Project-Based Learning facilitates identity construction by positioning students as instructional designers, facilitators, and evaluators. These roles simulate authentic professional responsibilities, supporting identity internalization.

Project-Based Learning as an Integrated Professional Formation Model

Project-Based Learning synthesizes experiential learning, social constructivism, and reflective practice into a coherent pedagogical framework. Core characteristics include sustained

inquiry, authenticity, collaboration, public presentation, and reflection. In teacher education contexts, PjBL transforms students from passive recipients of knowledge into active designers of instruction. By engaging in lesson planning, material development, microteaching, and assessment design, pre-service teachers rehearse professional roles within structured environments.

The public presentation element introduces accountability, encouraging rigor and preparation. Feedback mechanisms facilitate iterative improvement. The collaborative dimension fosters communication and negotiation skills. Reflection consolidates learning and supports identity development. Thus, PjBL may function not merely as a teaching strategy but as a comprehensive professional formation ecosystem.

METHODS

This study employed a qualitative case study design grounded in an interpretivist paradigm. The interpretivist orientation was selected because the study aimed to explore how pre-service teachers constructed meaning from their experiences within a Project-Based Learning (PjBL) environment. Rather than measuring predetermined variables, the research sought to understand participants' lived experiences, perceptions, and subjective interpretations regarding how PjBL contributed to their professional development. The qualitative case study design was considered appropriate because it allowed an in-depth exploration of a bounded system, namely a PjBL-based course within a specific teacher education context.

The study was conducted in the English Education Department of Universitas Muhammadiyah Ponorogo, where PjBL had been systematically integrated into course design. In this instructional setting, students engaged in structured project stages: planning, implementation, presentation, and reflection. These stages were intentionally designed to simulate authentic professional teaching responsibilities. To enrich contextual variation and provide broader perspectives, several additional participants were drawn from UIN Kiai Ageng Muhammad Besari Ponorogo, where comparable PjBL-oriented instructional practices had been implemented. Including participants from two institutions allowed the study to capture similarities and contextual nuances in professional development experiences.

The participants were 36 pre-service teachers who had completed at least one PjBL-based course during their studies. Purposive sampling was used to ensure that all participants had direct experience with project-based instruction and could therefore provide relevant and informed responses. From the total group of questionnaire respondents, several participants were selected for in-depth semi-structured interviews based on the richness and clarity of their questionnaire responses. This strategy enabled the researcher to explore emerging themes more profoundly and to clarify patterns identified in the initial data.

Data were collected through open-ended questionnaires and semi-structured interviews. The open-ended questionnaires were designed to capture a broad range of perceptions regarding learning experiences, project implementation stages, and perceived changes in professional competence, attitudes, and identity. This format allowed participants to express their views freely without being restricted by predetermined response categories. The semi-structured interviews complemented the questionnaire data by providing deeper insight into participants' reflective processes, identity development, and interpretations of specific project experiences. Interview questions were flexible, allowing the researcher to probe further into emerging themes such as professional commitment, collaborative challenges, and the development of confidence.

Data analysis followed an interactive qualitative analysis model, involving data condensation, data display, and conclusion drawing. During the data condensation phase, questionnaire responses and interview transcripts were carefully reviewed and coded to identify recurring patterns and significant statements related to professional development. These initial codes were then grouped into broader thematic categories representing key domains of professionalism. Data display involved organizing themes into coherent matrices and conceptual groupings to facilitate interpretation. Finally, conclusions were drawn through iterative comparison between data sources and emerging interpretations. Credibility of the findings was strengthened through triangulation between questionnaire and interview data, ensuring consistency across sources. Member checking was also conducted by sharing summarized interpretations with selected participants to confirm the accuracy of representation and to reduce potential researcher bias.

RESULTS AND DISCUSSION

The findings reveal that Project-Based Learning (PjBL) did not operate merely as an instructional technique but functioned as a structured professional formation space. Through sustained engagement in authentic pedagogical tasks, participants experienced layered transformations that affected cognitive understanding, instructional performance, social interaction, reflective awareness, and the construction of professional identity. These dimensions emerged not in isolation but as dynamically interconnected processes throughout the project cycle.

Analysis of questionnaire responses from 36 participants and in-depth interviews indicates that professionalism developed through repeated cycles of design, enactment, feedback, and reflection. The following discussion elaborates these dimensions with richer participant voices and deeper interpretative analysis.

Cognitive Development: Instructional Design and Assessment Literacy

A dominant theme across data sources was the strengthening of instructional design competence. Participants consistently described a transformation in their approach to lesson planning. Initially, lesson plans were seen as formal requirements for fulfilling coursework obligations. However, through project-based design tasks, participants began to conceptualize lesson planning as a strategic pedagogical act.

One participant explained:

“Before this course, I usually just followed the template. I filled in the objectives, activities, and assessment without really thinking deeply. But during the project, I had to explain why I chose certain activities. That made me realize teaching is not random. It must be connected from beginning to end.”

This statement illustrates a shift from procedural compliance toward conceptual coherence. Participants began internalizing the alignment among objectives, materials, strategies, and assessments. Another participant reflected:

“When designing the project lesson plan, I noticed that if the objective is about speaking skills, the activities must really allow students to speak, not just listen to explanations. It sounds simple, but I did not think like that before.”

Such reflections indicate the emergence of pedagogical reasoning rather than surface-level task completion. Students were no longer merely assembling instructional components; they were evaluating congruence between intended learning outcomes and enacted classroom activities.

Assessment literacy also demonstrated significant development. Many participants initially equated assessment with grading. However, the project requirements called for the development of a rubric and the integration of formative assessment. One interviewee stated:

“I used to think assessment is just giving scores. But when we created rubrics and tried to apply them in microteaching, I realized that assessment helps students understand their progress. It is part of teaching, not separate from it.”

Another participant added:

“Making a rubric was difficult because we had to make the criteria clear and measurable. It trained me to think objectively.”

These insights suggest that cognitive growth involves not only technical skills but also conceptual reorientation regarding the purpose of assessment. Assessment was reconstructed as a learning-support mechanism rather than an evaluative endpoint.

Importantly, cognitive development was closely linked to iterative revision. Participants repeatedly mentioned revising lesson plans after receiving peer and lecturer feedback. One stated:

“After presenting our lesson plan, many friends gave suggestions. At first, I felt embarrassed, but when I revised it, I saw the improvement clearly.”

This process reflects dialogic knowledge construction. Pedagogical understanding was not individually accumulated but socially negotiated and refined.

Practical Development: Teaching Simulation and Classroom Management

The practical dimension emerged most strongly during microteaching simulations. Participants initially described feelings of nervousness and uncertainty. One participant admitted:

“During my first microteaching, my hands were shaking. I forgot some instructions, and my timing was not good.”

However, repeated simulation cycles produced noticeable improvement. A participant reflected:

“After several practices, I became more confident. I learned how to give clearer instructions and manage time better.”

Another emphasized classroom management:

“When my classmates acted as students and made noise on purpose, I realized managing a class is not easy. I had to think quickly and stay calm.”

This experiential exposure to simulated classroom unpredictability functioned as a rehearsal for professional practice. Rather than encountering classroom complexity for the first time during teaching practicum, students experienced controlled but realistic challenges within university settings.

Participants also described improvement in voice projection, body language, and questioning techniques. One interviewee noted:

“I became more aware of my gestures and eye contact. Before, I just focused on finishing the material. Now I try to engage the class.”

Such awareness indicates embodied professional growth. Teaching competence was no longer purely cognitive but performative and situational.

Importantly, practical development was strongly supported by structured feedback. Peer comments and lecturer evaluations guided refinement. As one participant described:

“The feedback session was invaluable. My friends told me that my explanation was clear, but my transition between activities was confusing. I worked on that in the next simulation.”

This iterative enactment-feedback cycle reflects experiential learning principles. Competence evolved through practice, evaluation, and adjustment.

Social Development: Collaboration and Professional Communication

Collaboration played a central role in shaping professional growth. Group-based project tasks required negotiation, coordination, and shared accountability. Many participants reported that collaborative discussions deepened their pedagogical understanding.

One participant stated:

“In my group, we had different ideas about teaching strategies. Sometimes we debated a lot, but that discussion made our lesson plan stronger.”

Another explained:

“When someone disagreed with my idea, I had to explain my reasons clearly. It trained me to communicate professionally.”

These interactions resemble professional learning communities where teachers collaboratively design curriculum and solve instructional challenges. Through dialogue, participants learned to articulate pedagogical reasoning and respect diverse perspectives.

Nevertheless, collaboration also presented challenges. Unequal contributions occasionally created tension. A participant acknowledged:

“Sometimes, not all members worked equally. We had to discuss openly about responsibilities.”

Instead of perceiving this as purely negative, several participants framed it as a learning opportunity:

“It taught me how to manage teamwork and communicate expectations clearly.”

Presentation sessions further enhanced professional communication skills. Participants described initial anxiety:

“Presenting in front of the class was stressful, especially when friends asked critical questions.”

However, repeated exposure fostered confidence:

“After several presentations, I felt more comfortable explaining my teaching decisions.”

These experiences strengthened public speaking competence and professional articulation. Participants gradually became more fluent in discussing pedagogical concepts using appropriate terminology.

Reflective Development: Critical Self-Evaluation

Reflection was systematically embedded in the project cycle. Over time, participants demonstrated increasing depth in reflective analysis. Early reflections focused on emotional reactions, such as nervousness. Later reflections addressed pedagogical alignment and student engagement.

One participant shared:

“At first, I only wrote that I was nervous. But later, I analyzed why students seemed less engaged. I realized my instructions were too long.”

Another reflected:

“Through reflection, I noticed that some activities did not match my objectives. It helped me plan better next time.”

This progression illustrates the development of metacognitive awareness. Participants moved beyond describing events toward analyzing causes and consequences.

Some reflections extended to ethical considerations. One interviewee noted:

“I began thinking about how to design activities for students with different abilities. It made me more aware of inclusivity.”

Such awareness reflects expanding professional consciousness beyond technical competence. Reflection also contributed to emotional regulation. A participant explained:

“After reflecting, I did not see mistakes as failure. I saw them as learning opportunities.”

This mindset aligns with growth-oriented professional identity formation.

Identity Development: Becoming a Teacher

Perhaps the most profound transformation occurred at the level of identity. Many participants explicitly described a shift in self-perception.

One stated:

“Before this course, I still felt like just a student. After completing the project, I felt closer to being a real teacher.”

Another expressed:

“When I successfully handled the simulation class, I felt proud. It increased my confidence to teach in the future.”

Identity formation emerged through accumulated mastery experiences. Repeated successful enactment reinforced self-efficacy. Participants began internalizing professional standards and expectations.

Significantly, identity development was intertwined with responsibility. As one participant reflected:

“Now I understand being a teacher is not easy. It requires preparation and seriousness. I feel more responsible about my role.”

Professional identity thus evolved through integration of competence, reflection, and commitment.

Challenges as Transformative Tension

Although the overall impact was positive, participants reported significant challenges. Time management was frequently cited:

“The project required a lot of time, especially when combined with other assignments.”

Presentation anxiety also surfaced repeatedly:

“I was afraid of making mistakes in front of my friends.”

However, these challenges were reframed as growth catalysts. Participants noted increased resilience and adaptability over time. Such findings suggest that structured difficulty, when accompanied by feedback and support, contributes positively to professional formation.

Integrated Interpretation

The findings indicate that professionalism developed holistically through interconnected dimensions. Cognitive understanding informed instructional practice. Practice stimulated reflection. Reflection reinforced identity. Collaboration enriched cognitive and social growth. Identity strengthened commitment and responsibility. Rather than linear progression, professional development functioned as a recursive cycle. Each project stage activated multiple domains simultaneously. This multidimensional interaction underscores that teacher professionalism cannot be cultivated through theoretical exposure alone; it requires immersive, dialogic, and reflective engagement.

Multidimensional Model of Professional Growth

The findings suggest that PjBL strengthens professionalism across five interconnected dimensions.

Table 1. Dimensions of Professional Growth through Project-Based Learning

Dimension	Description
Cognitive Dimension	Development of instructional design skills and assessment literacy.
Practical Dimension	Improvement in teaching simulation performance and classroom management.
Social Dimension	Enhancement of collaboration and professional communication skills.
Reflective Dimension	Strengthening of critical self-evaluation and reflective awareness.
Identity Dimension	Growth of professional commitment and teacher identity formation.

These dimensions illustrate that professionalism develops holistically rather than linearly. Cognitive understanding supports practical implementation; social interaction enriches reflective insight; reflection reinforces identity formation.

Theoretical Implications

The results support the argument that professionalism is constructed through experiential engagement rather than passive theoretical exposure. PjBL integrates experiential learning, social constructivism, reflective practice, and identity formation within a coherent pedagogical framework. By combining authentic tasks, collaborative interaction, reflective evaluation, and academic rigor, PjBL functions as a comprehensive professional preparation model. The findings suggest that teacher education programs should systematically integrate project-based methodologies to foster holistic professional formation.

CONCLUSION

Project-Based Learning provides meaningful and holistic learning experiences that significantly strengthen pre-service teachers' professionalism. Through authentic tasks, collaboration, reflection, and academic literacy development, pre-service teachers develop pedagogical competence, professional attitudes, teaching confidence, and professional identity. The structured stages of planning, implementation, and reflection are critical in facilitating this growth. Therefore, integrating well-designed PjBL courses into teacher education programs is recommended to prepare professional, adaptive future educators.

REFERENCES

- Anggraini, N., & Syaifullah, M. (2025). Konsep dasar profesionalisme guru. *Jurnal Transformasi Pendidikan Profesi Guru*.
- Astriani, D., Fauziah, A. N. M., Hendratmoko, A. F., Rosdiana, L., & Martini. (2025). Project Based Learning (PjBL) learning model to train pedagogical competencies of prospective science teacher students. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*.
- Darling-Hammond, L., et al. (2017). Teacher education around the world. *European Journal of Teacher Education*, 40(3), 291–309.
- Dewi Narendradhuhita, T. D., Wulandari, A., Ikmawati, I., & Untu, Z. (2024). Profesionalisme guru dalam meningkatkan mutu pembelajaran matematika di sekolah. *Jurnal Ilmu Pendidikan dan Kearifan Lokal*.
- Evans, L. (2019). Teacher professionalism and professional development. *Educational Research*, 61(1), 1–16.
- Indraswati, D., Utami, P. S., Nursaptini, D., Sutisna, D., & Novitasari, S. (2020). Persepsi dan motivasi mahasiswa PGSD tentang profesi guru. *Jurnal Dimensi Pendidikan dan Pembelajaran*, Vol 8 No 3: Juli 2020.
- Krajcik, J., & Blumenfeld, P. (2006). Project-based learning. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 317–333). *Cambridge University Press*.
- Larmer, J., & Mergendoller, J. (2015). Gold standard PBL: Essential project design elements. *Buck Institute for Education*.

- Liang, H., Guo, T., & Zhang, C. (2025). Understanding teacher agency of novice teachers in the context of Project-Based Learning. *Journal of Ecohumanism*, 4(2).
- Ludi Litterarri. (2025). Developing microteaching competence through Project-Based Learning for primary teacher education students. *Journal of Ludi Litterarri*.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). Qualitative data analysis: A methods sourcebook. *Sage*.
- Muqowwam, A., Abdullah, M. G. B., Hadiwijaya, M., & Lestari, H. D. (2024). Teacher professionalism development strategy in the digital era: challenges and opportunities. *Seroja: Jurnal Pendidikan*, 3(2), 162–167.
- Nur Aini. (2022). Peningkatan kinerja guru melalui supervisi akademik di SDN 004 Batu Ampar Kota Batam. *Jurnal Dimensi Pendidikan dan Pembelajaran*, Vol 10 No 1: Januari 2022.
- Rodiya, Y., & Suklani. (2022). Strategi pembinaan dan pengembangan profesionalisme guru Pendidikan Agama Islam di sekolah dan madrasah. *Jurnal Dimensi Pendidikan dan Pembelajaran*, 10 Special Issue(1), 119–133.
- Selasmawati, & Lidyasari, A. T. (2023). Project-Based Learning model in improving critical thinking abilities in elementary schools. *Jurnal Penelitian Pendidikan IPA*, 9(11), 1165–1170.
- Sulasma, K., Istiatin, I., & Sudarwati, S. (2022). Peningkatan prestasi belajar siswa MTs Negeri 3 Sragen. *Jurnal Dimensi Pendidikan dan Pembelajaran*, 10(2), 112–122.
- Tanila, M., Sulastini, S., & Agustina, I. W. (2024). Vocational high school teachers' perception of project-based learning. *STAIRS: English Language Education Journal*.
- Timpal, C. (2025). Development of teacher professionalism. *Santhet: Jurnal Sejarah Pendidikan dan Humaniora*.
- UIN Raden Fatah Palembang Research Team. (2024). Membangun profesionalisme guru melalui learning organisation dan professional learning community. *Pendas: Jurnal Ilmiah Pendidikan Dasar*.
- Wulandari, M. A., Senen, A., Wardani, S., & Ruqoyyah, S. (2025). Transforming education through Project-Based Learning: enhancing learning outcomes and critical thinking. *Jurnal Profesi Pendidikan*, 4(1), 200–215.
- Zainuddin. (2022). Penerapan supervisi akademik untuk meningkatkan kompetensi guru dalam menyusun administrasi penilaian. *Jurnal Dimensi Pendidikan dan Pembelajaran*, Vol 10 No 1: Januari 2022.