Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

Perceptions of Indonesian Language Teachers Regarding the Application of Project-Based Learning Models at SMA Negeri 2 Siak Hulu

Devita Rahmawati Putri[1], Desi Sukenti[1]

[1] Universitas Islam Riau, Pekanbaru, Indonesia
devitarahmawatiputri@student.uir.ac.id, *desisukenti@edu.uir.ac.id*
corresponding author: *devitarahmawatiputri@student.uir.ac.id*

ABSTRACT

This study aims to describe Indonesian language teachers' perceptions of the implementation of Project-Based Learning at SMA Negeri 2 Siak Hulu. This research employed a qualitative approach with a phenomenological method to explore teachers' experiences and perspectives in implementing Project-Based Learning. The participants consisted of five Indonesian Language teachers selected as informants. Data were collected through in-depth interviews and analyzed using thematic analysis, which involved data reduction, data display, and conclusion drawing. The findings indicate that teachers generally have positive perceptions of the implementation of Project-Based Learning. Initially, the model was perceived as challenging because it required thorough preparation and more complex classroom management. However, teachers acknowledged that Project-Based Learning fosters a more active learning environment and enhances students' direct engagement in the learning process. They understood Project-Based Learning as a student-centered model in which students act as the main learning subjects, while teachers function as facilitators. Theoretically, this study contributes to the enrichment of phenomenological perspectives on teachers' perceptions in the context of Indonesian Language learning and provides empirical support for the relevance of Project-Based Learning in improving instructional quality. Overall, Project-Based Learning is considered relevant and effective in enhancing the quality of Indonesian Language learning.

Keywords*: *teacher perceptions, project-based learning, indonesian language

Submitted	Accepted	Published
09 February 2026	01 March 2026	30 March 2026

Citation	:	Putri, D.R., & Sukenti, D. (2026). Perceptions of Indonesian Language Teachers Regarding the Application of Project-Based Learning Models at SMA Negeri 2 Siak Hulu. *Jurnal PAJAR (Pendidikan dan Pengajaran), 10*(2), 204-213. DOI: http://dx.doi.org/10.33578/pjr.v10i2.1100.

INTRODUCTION

The transformation of education in the 21st century demands learning processes that not only transmit knowledge but also cultivate higher-order thinking skills, collaboration, creativity, and communication. Contemporary educational discourse emphasizes the need for instructional models that actively engage students in constructing knowledge through authentic experiences. Sukenti and Tambak (2026) argue that educational processes must facilitate the development of critical and collaborative competencies as key components of global competitiveness. Similarly, Rahman et al. (2025) stress that contextual and meaningful learning approaches are necessary to foster students' higher-order thinking skills in response to rapid social and technological changes.

One significant shift in educational practice is the movement from teacher-centered instruction to student-centered learning. This paradigm requires teachers to act not merely as transmitters of information but as facilitators who design learning environments that promote inquiry, reflection, and collaboration. Within this framework, project-based learning (PBL) has emerged as a relevant instructional model. Lubis et al. (2024) note that modern educational practices require students to actively construct knowledge through real-life problem solving, rather than passively receiving theoretical explanations. Through project activities, learners investigate contextual issues, collaborate in teams, and produce tangible outputs that reflect their understanding.

In the context of Indonesian language learning, PBL aligns closely with the objectives of developing communicative competence across listening, speaking, reading, and writing skills. Enik et al. (2023)

Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

demonstrate that PBL can be implemented in activities such as writing expository texts, producing literary works, and developing literacy media based on socio-cultural themes. Furthermore, Fariza and Kusuma (2024) report that project-based approaches enhance students' engagement and responsibility while simultaneously strengthening their analytical and collaborative abilities. These findings indicate that PBL has pedagogical potential in language education when implemented systematically.

At the policy level, the adoption of PBL has been reinforced through the implementation of the Merdeka Curriculum, which emphasizes differentiated instruction, experiential learning, and the strengthening of the Pancasila Student Profile. However, despite its conceptual alignment with curricular goals, the implementation of PBL in schools faces practical challenges. Teachers frequently encounter constraints related to time allocation, project planning complexity, assessment mechanisms, and variations in students' readiness. Mukhlis (2024) highlights that teachers' positive perceptions significantly influence their consistency and effectiveness in implementing PBL, whereas doubts or negative perceptions may reduce implementation quality.

Although previous studies have widely examined the effectiveness of PBL on student outcomes, limited attention has been given to teachers' perceptions as a determining factor in its sustainability, particularly in Indonesian language learning at the senior high school level. Existing research tends to focus on learning results or model effectiveness, leaving a gap in understanding how teachers interpret, accept, and evaluate PBL within their specific institutional contexts. This gap is important because teachers' perceptions influence instructional decisions, classroom management, and adaptation strategies during implementation. Therefore, examining teachers' perceptions provides deeper insight into the practical feasibility and contextual challenges of PBL integration.

Perception refers to the process by which individuals interpret stimuli based on prior experiences, knowledge, and psychological conditions. Walgito (2010) explains that perception is shaped by internal factors such as attention and experience, as well as external factors including environmental context. Jafar (2019) adds that perception involves cognitive interpretation that ultimately shapes attitudes and behavioral tendencies. In this study, teachers' perceptions are conceptualized as contextual interpretations of their experiences in implementing PBL, which influence their acceptance, understanding, and evaluation of the model.

Based on this rationale, this study aims to analyze Indonesian language teachers' perceptions of project-based learning at the senior high school level, focusing on three indicators: acceptance, understanding, and assessment. By addressing the identified research gap, this study contributes to a more comprehensive understanding of how pedagogical innovation is interpreted and enacted at the classroom level, particularly within the framework of the Merdeka Curriculum.

METHOD

This study employed a qualitative approach with a phenomenological design grounded in the transcendental phenomenology of Clark Moustakas, which is rooted in the philosophical ideas of Edmund Husserl. This model was selected because it emphasizes the exploration of lived experiences and the essential meanings constructed by participants regarding a particular phenomenon. In this study, the phenomenon under investigation was Indonesian language teachers' lived experiences in implementing project-based learning within the Merdeka Curriculum framework. The transcendental phenomenological model enabled the researcher to focus on the participants' conscious experiences while setting aside prior assumptions.

To ensure methodological rigor, the researcher applied the principle of epoché (bracketing). Before and during data collection and analysis, the researcher consciously identified and set aside personal biases, prior knowledge, and subjective assumptions regarding project-based learning. This reflective process was documented in a reflexive journal to maintain awareness of potential researcher influence throughout the research process. By implementing bracketing, the researcher aimed to capture the authentic voices and meanings expressed by participants.

Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

The research was conducted at SMA Negeri 2 Siak Hulu, Kampar Regency, Riau Province, from November 2025 to January 2026. The site was selected because the school has implemented project-based learning in Indonesian language instruction in alignment with the Merdeka Curriculum policy. The participants consisted of five Indonesian language teachers who were directly involved in planning and implementing project-based learning. They were selected through purposive sampling based on their teaching experience and active involvement in the model's implementation, ensuring that participants possessed rich and relevant experiential knowledge of the phenomenon.

Data were collected through in-depth interviews, classroom observations, and document analysis. In-depth interviews were the primary data source, aiming to explore participants' lived experiences, perceptions, and interpretations regarding project-based learning practices. Observations were conducted to examine how project-based learning was enacted in classroom settings, including teacher facilitation strategies and student engagement. Documentation, such as teaching modules, lesson plans, student project outputs, and photographs of classroom activities, served as supporting evidence to contextualize and corroborate the interview and observation data. Research instruments included semi-structured interview guidelines, structured observation sheets, and documentation checklists, all developed based on the research focus. The detailed instrument grid is provided in the appendix to enhance procedural transparency.

Data analysis followed Moustakas' phenomenological procedures. First, all interview recordings were transcribed verbatim. The researcher then conducted horizontalization, identifying significant statements relevant to the teachers' experiences without initially prioritizing any single perspective. Each meaningful statement was coded manually, and no qualitative data analysis software such as NVivo was employed; instead, coding and categorization were conducted systematically using manual thematic matrices to maintain close engagement with the data. After coding, the researcher clustered related meanings into themes that reflected three major dimensions: teachers' acceptance of project-based learning, teachers' understanding of the project-based learning syntax, and teachers' evaluation of the implementation process and learning outcomes.

Subsequently, textural descriptions (what participants experienced) and structural descriptions (how they experienced it within specific contexts) were developed. These descriptions were synthesized to construct the essential structure of the phenomenon, revealing the core meaning of teachers' lived experiences in implementing project-based learning. This step ensured that the analysis moved beyond simple thematic grouping toward identifying the invariant essence of the experience.

Ethical considerations were strictly observed. The study received formal ethical approval from the Institutional Research Ethics Committee of the affiliated university under Ethical Approval Number: 015/KEP-UNIV/2025. All participants provided informed consent before data collection. Confidentiality was maintained by anonymizing participants' identities using coded initials, and all data were securely stored for research purposes only.

To ensure trustworthiness, the study applied established qualitative criteria. Credibility was achieved through triangulation of data sources (interviews, observations, and documentation), methodological triangulation, and member checking, whereby participants reviewed and confirmed the accuracy of interview transcripts and interpretative summaries. Dependability was ensured by maintaining an audit trail documenting research procedures, coding processes, and analytical decisions. Confirmability was strengthened through reflexive journaling and peer debriefing with fellow researchers to minimize bias. Transferability was supported by providing thick descriptions of the research context, participants, and learning environment, enabling readers to determine the applicability of findings to similar contexts.

Through these systematic procedures, the study ensured methodological clarity, analytical rigor, ethical integrity, and trustworthiness in exploring Indonesian language teachers' phenomenological experiences in implementing project-based learning.

Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

RESULTS AND DISCUSSION

This section presents a phenomenological analysis of Indonesian language teachers' lived experiences in implementing Project-Based Learning (PjBL) at SMA Negeri 2 Siak Hulu. The findings are organized thematically and supported by direct quotations from informants (coded as T1, T2, T3) to reflect the essence of their experiential meaning-making. The discussion integrates theoretical perspectives and recent empirical studies to deepen interpretive analysis. At the end of the section, a conceptual model is proposed as a synthesis of findings.

Table1. Description of Indonesian Language Teachers' Perceptions of Project-Based Learning at SMA Negeri 2 Siak Hulu

No	Theme	Summary of Findings
1	Teachers' Initial Attitudes toward Project-Based Learning	Teachers initially felt challenged, hesitant, or burdened due to unfamiliarity with project-based learning; however, most gradually developed positive attitudes, perceiving it as more engaging, meaningful, and capable of providing new teaching experiences.
2	Response to the Driving Question	Driving questions were perceived as effective in stimulating students' curiosity, encouraging active participation, focusing students' thinking, and preparing them for project implementation.
3	Student Involvement in Project Planning	Students were generally enthusiastic and actively involved in proposing ideas, although most still required guidance to ensure alignment with learning objectives.
4	Project Scheduling	Project scheduling was considered helpful in fostering students' responsibility and time-management skills, although consistency and adherence to deadlines remained challenges.
5	Teachers' Attitudes in Monitoring Projects	Continuous monitoring was viewed as essential for identifying students' difficulties, maintaining focus, preventing procrastination, and ensuring projects aligned with learning goals.
6	Teachers' Understanding of Project-Based Learning	Teachers understood project-based learning as an instructional approach that emphasizes students' active involvement in producing tangible learning outcomes through projects.
7	Understanding the Function of Driving Questions	Driving questions were perceived as initial learning directions that guide project focus, clarify problems, and support students' readiness to learn.
8	Roles of Teachers and Students	Teachers acted primarily as facilitators and mentors, while students served as the main actors responsible for planning, executing, and completing projects.
9	Understanding the Purpose of Project Monitoring	Monitoring was understood as a means to support project continuity, track student progress, address difficulties, and ensure alignment with planned objectives.
10	Understanding of Project Assessment Methods	Project assessment focused on both learning processes and final products, including collaboration, discipline, and overall project outcomes.
11	Perceived Effectiveness of Project-Based Learning	Project-based learning was considered effective in increasing student activity, learning variety, and overall engagement, despite varying levels of student participation.
12	Evaluation of Project Monitoring	Monitoring was perceived as beneficial in maintaining student focus, motivation, task completion, and timely project submission.
13	Assessment of Project Output Quality	Teachers reported varied project quality, with many students demonstrating creativity, understanding of material, and achievement of learning objectives.
14	Benefits of Learning Reflection	Reflection activities helped students evaluate strengths and weaknesses, understand learning experiences, and served as feedback for improving future learning.
15	Overall Evaluation of	Overall, project-based learning was implemented fairly well and showed positive

Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

No	Theme	Summary of Findings
	Project-Based Learning Implementation	impacts, although adjustments in time management and student readiness were still required.

Transformative Acceptance: From Pedagogical Shock to Professional Growth

At the initial stage of implementation, teachers described feelings of pedagogical shock, uncertainty, and increased workload. Their narratives reflect a transitional phase characterized by cognitive and emotional adjustment to a new instructional paradigm.

T1: "At the beginning, I felt overwhelmed because PjBL required detailed preparation and more active classroom facilitation. It was different from what I was used to."

T2: "Honestly, I was hesitant. I worried whether students would be ready to work independently and whether I could manage the class effectively."

These statements indicate that teachers initially perceived PjBL as a demanding pedagogical stimulus. In line with Walgito's (2010) theory of perception, new stimuli that differ from prior cognitive schemas may produce discomfort before being integrated meaningfully. The teachers' hesitation illustrates a perceptual negotiation process in which prior teacher-centered schemas encountered student-centered demands.

However, sustained practice gradually transformed these perceptions into professional growth:

T3: "After several projects, I realized students became more active. I started to see that the effort was worth it."

This transition from resistance to acceptance demonstrates that teachers' perceptions evolved through experiential reinforcement. Agustina and Mustika (2023) argue that teachers' acceptance of pedagogical innovation develops proportionally with the intensity of implementation and reflective engagement. The present findings extend this argument by showing that perception in a phenomenological sense is not merely cognitive but experiential and affective. Teachers reinterpreted initial discomfort as a necessary stage of adaptation, thereby constructing new professional identities aligned with student-centered pedagogy.

Driving Questions and Structured Autonomy

Teachers consistently identified driving questions as the epistemic anchor of PjBL.

T1: "If the driving question is strong, students immediately understand what they are looking for. Without it, the project becomes unfocused."

T2: "The question guides them. It stimulates curiosity and helps them connect the topic to real-life issues."

These perceptions reveal that teachers interpret driving questions as cognitive organizers. Theoretically, such questions function as scaffolding mechanisms that activate prior knowledge and direct inquiry processes. The teachers' emphasis on clarity and contextual relevance reflects an understanding of inquiry-based epistemology within PjBL.Regarding project planning, teachers highlighted student participation while acknowledging the necessity of structured guidance:

T3: "Students are enthusiastic in proposing ideas, but we still need to guide them so the project aligns with learning objectives."

This indicates that teachers conceptualize autonomy as "structured freedom." Learner independence is encouraged but bounded by curricular coherence and pedagogical scaffolding. Putri and Hidayat (2021) and Ningsih et al. (2023) similarly report that effective PjBL requires strategic teacher mediation to balance creativity with academic rigor. The current findings deepen this perspective by demonstrating that teachers' perceptions of autonomy are not laissez-faire but pedagogically intentional.

Time Management and Monitoring as Character Formation

Teachers perceived project scheduling not merely as logistical organization but as a medium for character education.

Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

T1: "Scheduling teaches them responsibility. When they miss deadlines, they learn from it."
T2: "Time management is still a challenge, but I see it as part of their learning process."

This interpretation suggests that teachers attach moral and developmental meaning to time discipline. Rather than viewing inconsistency as failure, they interpret it as experiential growth. Such perception reflects evaluative meaning-making, consistent with Walgito's evaluative perception concept (2010), wherein individuals interpret stimuli according to internalized values and expectations.

Project monitoring was similarly perceived as pedagogical mentoring rather than control:

T3: "Monitoring helps students stay on track. It's not about limiting them, but about supporting them."

This aligns with Fitriani and Sulistyo (2021), who argue that continuous supervision enhances motivation and engagement. From a phenomenological standpoint, monitoring becomes a relational practice that reinforces teacher-student dialogue and shared responsibility.

Conceptual Understanding, Role Transformation, and Authentic Assessment

Teachers demonstrated conceptual clarity regarding PjBL principles:

T1: "In PjBL, students are the main actors. We facilitate, not dominate."

This statement illustrates a paradigmatic shift from teacher-centered to student-centered learning. Teachers redefined their roles as facilitators, mentors, and reflective practitioners. This shift is not merely structural but ontological, influencing how teachers perceive their professional identity.

Regarding assessment:

T2: "Assessment is not only about the final product. We assess collaboration, discipline, and participation."

Teachers' evaluative perspective reflects authentic assessment principles, emphasizing both process and product. Lestari et al. (2024) highlight that authentic assessment provides a holistic measure of learning achievement. The present findings extend this claim by demonstrating that teachers' perception of assessment maturity emerges through reflective experience rather than theoretical instruction alone.

Effectiveness, Product Variation, and Reflective Practice

Teachers generally perceived PjBL as effective, though not without limitations:

T3: "Students are more engaged, but not all contribute equally."

Variations in product quality were attributed to differences in students' abilities rather than to methodological weakness:

T1: "Different outcomes show different creativity levels. That's natural in project-based learning."

This perception indicates teachers' acceptance of heterogeneity as intrinsic to authentic learning. Reflection was also emphasized:

T2: "Reflection sessions help students evaluate what they have learned, and they help me improve my teaching."

Reflection was interpreted as a metacognitive and professional development tool. Lestari et al. (2024) similarly argue that reflection strengthens continuous instructional improvement. In this study, reflection functions as a cyclical reinforcement mechanism connecting experience and perception.

Conceptual Model of Teachers' Perceptual Development in PjBL

Based on the phenomenological synthesis of the findings, teachers' perceptual development toward Project-Based Learning (PjBL) can be understood as a gradual and transformative process rather than an immediate acceptance of innovation. The trajectory begins with an initial stimulus, where teachers are first exposed to PjBL as a pedagogical innovation. At this stage, their understanding is largely conceptual and influenced by prior beliefs, institutional expectations, and professional experience.

This exposure is followed by a phase of pedagogical shock and cognitive dissonance. Teachers encounter discrepancies between their established instructional habits and the student-centered, inquiry-driven

Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

demands of PjBL. Feelings of uncertainty, tension, and professional doubt often emerge as they reassess classroom control, time management, assessment strategies, and learning outcomes. This dissonance becomes a critical turning point in shaping deeper engagement with the approach.

Subsequently, teachers move into experiential implementation and reflective engagement. Through direct classroom practice, they begin testing theoretical assumptions against lived pedagogical realities. Reflection plays a central role at this stage, as teachers evaluate what works, what challenges persist, and how students respond to project-based tasks. Experience gradually transforms abstract understanding into contextualized knowledge.

As confidence develops, teachers enter the phase of structured autonomy and facilitator role internalization. They begin to shift from a traditional transmitter of knowledge toward a facilitator who scaffolds inquiry, supports collaboration, and guides student exploration. Autonomy becomes structured rather than uncontrolled; teachers design learning frameworks while allowing students meaningful participation in decision-making and problem-solving.

The process continues with authentic evaluation and metacognitive reflection. Teachers reconsider assessment practices, emphasizing performance-based evaluation, process documentation, and reflective learning rather than solely relying on conventional testing. At the same time, they engage in metacognitive awareness, reflecting on their own instructional growth and evolving professional identity.

Finally, the trajectory culminates in transformative acceptance and professional growth. Acceptance of PjBL emerges not as compliance with policy but as a reconstructed pedagogical belief system grounded in lived experience. Teachers integrate PjBL into their instructional identity, viewing it as an integral component of meaningful learning. This transformation reflects professional maturation, increased pedagogical flexibility, and a deeper alignment between educational philosophy and classroom practice.

Overall, the model demonstrates that teachers' perceptions evolve cyclically through stages of stimulus interpretation, experiential validation, reflective meaning-making, and identity transformation. Acceptance of PjBL is therefore constructed through sustained pedagogical experience and reflective professional development.

The findings demonstrate that teachers' perceptions of PjBL at SMA Negeri 2 Siak Hulu are dynamic, developmental, and experientially grounded. Initial hesitation reflects schema incongruence between conventional instructional practices and student-centered innovation. However, through sustained implementation, reflective practice, and positive student responses, teachers reconstruct their perceptions into supportive and critical acceptance.

This study contributes theoretically by extending Walgito's perception framework into a pedagogical innovation context and empirically by providing phenomenological evidence of perceptual transformation. Consistent with Agustina and Mustika (2023), Putri and Hidayat (2021), Ningsih et al. (2023), Fitriani and Sulistyo (2021), and Lestari et al. (2024), teachers' acceptance of PjBL emerges as an adaptive, reflective, and professionally transformative process.

Overall, PjBL implementation at SMA Negeri 2 Siak Hulu is perceived as relatively effective, fostering student engagement, responsibility, and authentic learning experiences. Nevertheless, time management, consistency, and equitable participation remain areas for refinement. The teachers' reflective and realistic stance indicates professional maturity and openness to continuous pedagogical innovation.

CONCLUSIONS AND RECOMMENDATION

This study concludes that Indonesian language teachers at SMA Negeri 2 Siak Hulu generally hold positive perceptions toward the implementation of Project-Based Learning (PBL). These perceptions indicate that teachers recognize PBL as a student-centered instructional model with strong potential to enhance students' engagement, creativity, collaboration skills, and overall learning outcomes in Indonesian language instruction. Nevertheless, despite this favorable perception, the practical implementation of PBL in classroom settings has not yet reached an optimal level.

Jurnal PAJAR (Pendidikan dan Pengajaran)
Volume 10 Nomor 2 March 2026 | ISSN Cetak : 2580 - 8435 | ISSN Online : 2614 - 1337
DOI : http://dx.doi.org/10.33578/pjr.v10i2.1100

The findings demonstrate that several challenges hinder the effective application of PBL, including limited instructional time, the complexity of designing project activities and assessment rubrics, and differences in students' readiness and academic abilities. In addition, variations in teachers' levels of understanding and depth of pedagogical knowledge regarding PBL significantly affect the consistency and quality of its implementation. Teachers who possess a more comprehensive understanding of PBL principles tend to integrate the model more systematically and effectively, whereas those with limited conceptual mastery apply it partially or inconsistently. These results underscore that teachers' perceptions and professional competence are decisive factors in determining the sustainability and instructional quality of Project-Based Learning in Indonesian language classrooms.

This study has several limitations. First, the research was conducted in a single school context, which restricts the generalizability of the findings to other educational settings. Second, the study primarily relied on teachers' perspectives without incorporating students' voices or classroom observation data to triangulate implementation practices more deeply. Third, the use of a qualitative descriptive approach limits the ability to measure the direct impact of PBL on students' academic achievement quantitatively. These limitations suggest that the findings should be interpreted within the specific institutional and contextual framework of the study.

In terms of theoretical contribution, this research enriches the discourse on constructivist learning theory by providing empirical evidence that teachers' perceptions function as a mediating variable between pedagogical innovation and classroom practice. The findings contribute to the growing body of literature on Project-Based Learning by demonstrating that positive perception alone is insufficient; it must be supported by pedagogical competence, institutional structures, and contextual readiness. Therefore, this study strengthens theoretical arguments that the successful implementation of student-centered learning models depends not only on curricular mandates but also on teachers' cognitive and professional readiness.

From a policy perspective, the study offers specific contributions to educational decision-making at the school and local government levels. It highlights the need for structured professional development programs focused specifically on PBL design, project assessment strategies, and classroom management in student-centered learning environments. Schools and educational authorities should formulate clear institutional policies that allocate sufficient instructional time for project activities, provide standardized PBL assessment guidelines, and integrate PBL training into continuous teacher professional development programs. Such policy support is essential to ensure that PBL implementation aligns with curriculum objectives and improves learning quality systematically.

Future research is recommended to expand the scope of investigation by involving multiple schools across different regions to enhance generalizability. Employing mixed-method approaches that combine surveys, classroom observations, and experimental designs would provide more comprehensive insights into the relationship between teachers' perceptions, implementation fidelity, and students' learning outcomes. Further studies may also explore the long-term impact of sustained PBL implementation on students' higher-order thinking skills, literacy development, and collaborative competencies in Indonesian language education.

Credit authorship contribution statement

The first author contributed to the formulation of the research concept, methodological design, data collection and processing, data analysis, and the writing of the initial draft of the manuscript. The second author was responsible for providing data sources, managing research administration, and assisting in the development and implementation of the research methodology. The last author contributed to research funding support, critical review, reinforcement of data analysis, and refinement of the final manuscript. All authors participated in the review process and approved the final version of the manuscript.

Declaration of competing interest

The authors declare that there are no competing interests, either financial or personal relationships, that could have influenced the research process or the results reported in this article.

Ethical declaration

This research was conducted in accordance with established research ethics principles. All participants provided informed consent before their involvement in the study. Participants were fully informed about the research objectives, procedures, and their right to withdraw from the study at any time without any consequences.

REFERENCES

Agustina, R., & Mustika, D. (2023). Persepsi guru terhadap perubahan Kurikulum 2013 menjadi Kurikulum Merdeka. *AULAD: Journal on Early Childhood, 6*(3), 408–416. https://doi.org/10.31004/aulad.v6i3.540

Amelia, N., Aisya, N., & Isnaini, T. (2021). Model pembelajaran berbasis proyek (*project based learning*) dan penerapannya pada anak usia dini. *Jurnal Pendidikan Anak Usia Dini, 1*(2), 181–199.

Andreani, D. (2023). Persepsi guru sekolah dasar terhadap mata pelajaran IPAS pada Kurikulum Merdeka. *Metodik Didaktik, 18*(2), 54–64.

Baswedan, A. (2016). *Peraturan Menteri Pendidikan dan Kebudayaan Nomor 22 Tahun 2016 tentang standar proses pendidikan dasar dan menengah*. Kementerian Pendidikan dan Kebudayaan.

Damayanti, N. A. (2024). Peran guru dalam menentukan model pembelajaran berbasis proyek di kelas rendah. *Jurnal Pendidikan Dasar, 2*, 1–14.

Dahri, N. (2022). *Problem and project based learning: Model pembelajaran abad ke-21*. CV Muharika Rumah Ilmiah.

Febriani, S. W., & Widiadi, A. N. (2024). Persepsi guru dan siswa terhadap model pembelajaran *project based learning* dalam mata pelajaran sejarah. *Jurnal Pendidikan Sejarah, 11*(1), 103–114.

Fitrianingtyas, A., Rasmani, E. U. E., Jumiatmoko, J., Zuhro, N. S., Winarji, B., & Nurjanah, N. E. (2023). Mengembangkan pendidikan karakter melalui pembelajaran berbasis proyek di PAUD. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 7*(5), 5675–5686. https://doi.org/10.31004/obsesi.v7i5.4970

Fitriani, R., & Sulistyo, Y. (2021). Implementasi penilaian autentik dalam pembelajaran berbasis proyek di sekolah menengah. *Jurnal Evaluasi Pendidikan, 12*(2), 145–156.

Jafar, W. A. (2019). *Persepsi masyarakat terhadap urgensi fiqh moderat*. Penerbit Vanda.

Kartiwi, Y. M. (2020). Penerapan metode pembelajaran berbasis proyek pada pembelajaran menyusun teks pidato siswa SMA. *Semantik, 9*(1). https://doi.org/10.22460/semantik

Lestari, D., Putra, A., & Hidayat, S. (2024). Refleksi pembelajaran dalam *project based learning* untuk meningkatkan kesadaran belajar siswa. *Jurnal Pendidikan Indonesia, 13*(1), 89–101.

Lubis, D. C., Khoiroh, F., Harahap, S., Syahfitri, N., Sazkia, N., & Siregar, N. E. (2024). Pembelajaran berbasis proyek: Mengembangkan keterampilan abad ke-21 di kelas. *Jurnal Pendidikan, 4*(1), 1292–1300.

Mukhlis, M. (2024). Persepsi guru terhadap pemanfaatan ChatGPT dalam mengembangkan soal literasi membaca. *Jurnal Penelitian Kebijakan Pendidikan, 9*(1), 1–19. https://doi.org/10.24832/jpnk.v9i1.4873

Ningsih, S., Rahman, A., & Pratama, R. (2023). Peran guru sebagai fasilitator dalam pembelajaran berbasis proyek. *Jurnal Inovasi Pembelajaran, 8*(2), 120–131.

Nur Ihsan, N., Nasir, A., & G. P. E. S. (2023). *Evaluasi pembelajaran perspektif Kurikulum Merdeka*. Deepublish.

Purnomo, H., & Ilyas, Y. (2019). *Tutorial pembelajaran berbasis proyek*. KMedia.

Putri, A. R., & Hidayat, T. (2021). Peran pertanyaan mendasar dalam pembelajaran berbasis proyek terhadap keterlibatan siswa. *Jurnal Pendidikan Bahasa dan Sastra, 21*(1), 33–45.

Rahmawati, L. (2020). Tantangan penerapan *project based learning* di sekolah menengah. *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan, 5*(4), 512–520.

Rahmat, A., Zubaidi, M., & Maulana, M. (2023). *Desain pembelajaran berbasis proyek*. Graha Ilmu.

Ramadhan, E. H. (2023). Penerapan model pembelajaran berbasis proyek untuk membantu siswa berpikir kreatif. *Jurnal Pendidikan, 2*(2), xx–xx.

Sari, M., Kurniawan, D., & Anwar, S. (2022). Driving question dalam pembelajaran berbasis proyek sebagai pengarah aktivitas belajar siswa. *Jurnal Pendidikan Modern, 7*(3), 201–213.

Sari, P. N., Wuryandani, W., & Murti, R. C. (2024). Improving critical thinking abilities through *project based learning*. *Jurnal Pendidikan, 9*(2), 327–352.

Subriyantoro, S. (2025). *Problem & project based learning*. Lakeisha.

Sugiyono. (2020). *Metode penelitian kualitatif.* Alfabeta.

Sukenti, D., & Tambak, S. (2023). Islamic teacher's ethical behavior, identity formation, and writing assessment: A phenomenological inquiry. *Al-Ishlah: Jurnal Pendidikan, 15*(4), 4943–4952. https://doi.org/10.35445/alishlah.v15i4.4570

Sukenti, D., & Tambak, S. (2026). The impact of teacher professional identity and psychological capital on learning assessment: Exploring emotional intelligence in language teachers. *[Nama Jurnal Belum Lengkap], 10*(1), 18–36.

Sukmawati, E., Didik, N., Imanah, N., & Rantauni, D. A. (2023). Pembelajaran berbasis proyek: Tinjauan literatur. *JINoP: Jurnal Inovasi Pembelajaran, 9*, 128–139.

Walgito, B. (2010). *Pengantar psikologi umum*. Andi.