



Research Developments and Challenges in Primary Education in Indonesia

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ABSTRACT

Primary education plays an important role in developing students' academic abilities, character, and social skills. This editorial aims to discuss the development of research and challenges in primary education in Indonesia, particularly in relation to teacher professionalism, literacy and numeracy, curriculum and assessment, and local culture and character development. The method involves an editorial review of relevant literature and education policy studies aligned with these areas of discussion. The synthesis indicates that improving the quality of primary education requires strengthening teachers' professional competencies, implementing contextual literacy and numeracy learning, aligning curriculum with assessment, and integrating local culture into students' character development. Furthermore, educational research needs to prioritize methodological rigor, transparent reporting, and the relevance of findings to learning needs in primary schools. This editorial concludes that the development of primary education should be supported by critical, context-sensitive, and evidence-based research. JMPSD is expected to contribute as a platform for disseminating research that supports improved learning quality and the advancement of primary education in Indonesia.

Keywords: *teacher professionalism; literacy and numeracy; curriculum and assessment; local culture; character development.*

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Article Info

Online First:

01/09/2026

INTRODUCTION

Primary education is a crucial foundation for developing students' academic abilities, character, and social skills (Moh Pudali Arodani et al., 2025; Priska Dinanti Putri, 2024). At this stage, children not only develop their reading, writing, and numeracy skills but also begin to shape their ways of thinking, learning habits, independence, and

understanding of their social and cultural environments (Aristya et al., 2023; Lalu Ahmad Mujaddid Algifari et al., 2025). Therefore, the quality of primary education should be a major priority in the development of educational policies and scholarly research in Indonesia.

In recent years, research on primary education has increasingly focused on improving teacher competence (Maulana

Siregar et al., 2026; Yulihartati & Veri, 2025), strengthening literacy and numeracy (Iasha et al., 2025), curriculum reform (Siskha Putri Sayekti, 2022), assessment development (Ulfha et al., 2025), and integrating cultural values into learning (Alwanda, 2026). These developments indicate that improving educational quality cannot rely on a single approach. Instead, it requires an integrated framework that connects educational policies, instructional practices, teacher capacity, family support, school environments, and the use of research evidence.

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(JMPSD) has an important opportunity to contribute to this development by disseminating research relevant to the challenges and needs of primary education. The conceptual framework underlying this editorial discussion is presented in **Figure 1**. It encompasses four key dimensions: teacher professionalism, literacy and numeracy, curriculum and assessment, and local culture and character development. These dimensions are interconnected and collectively support quality learning and students' holistic development.

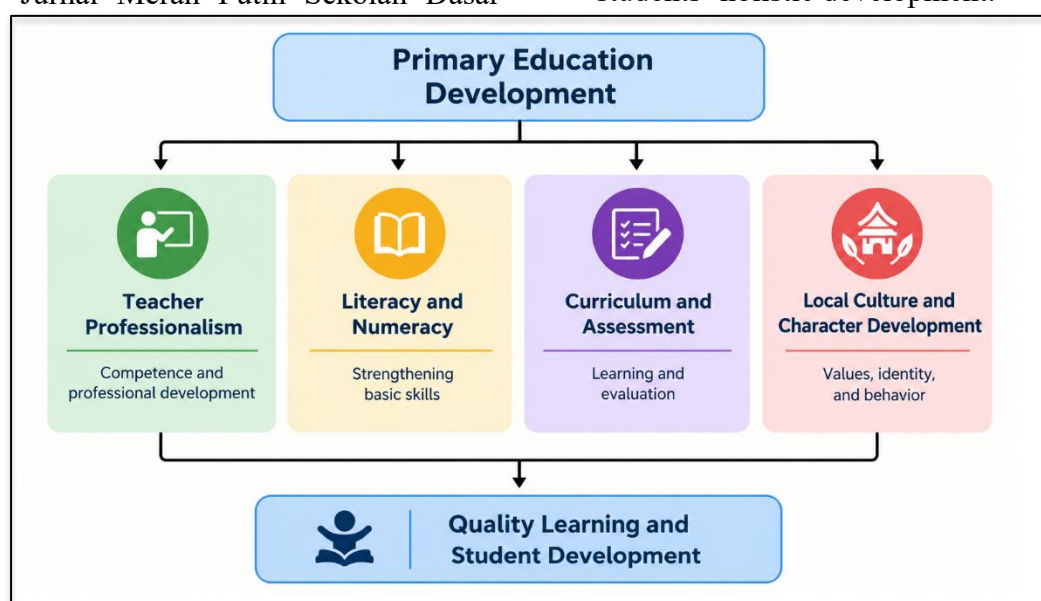


Fig 1. Conceptual framework for the development of primary education.

Research Developments and Teacher Professionalism in Primary Education

Teachers play a central role in translating educational policies and curricula into meaningful learning experiences. Accordingly, teacher professionalism should not be understood solely in terms of subject-matter mastery or compliance with administrative requirements (Widyasari, 2025). It also encompasses the ability to design effective instruction, understand students' characteristics, apply appropriate pedagogical strategies, conduct assessments, reflect on teaching practices, and engage in continuous professional development (Aisah Wahdini Manik et al., 2025; Wahyuni et al.,

2024). The OECD's (2024) analysis of educational transformation in Indonesia discusses various reforms aimed at improving learning outcomes, strengthening foundational competencies, promoting formative assessment, and advancing teacher professional development. These priorities highlight the importance of enabling teachers to adapt instruction to students' learning needs while maintaining alignment with curriculum objectives (Transforming Education in Indonesia, 2024).

Teachers' professional development needs may vary according to their teaching experience, students' characteristics, the availability of learning resources, and

institutional support. Consequently, research on teacher professionalism should extend beyond the general measurement of teacher competencies (Hendrik Dewantara, 2024). It should also investigate how professional development programs are implemented, which factors facilitate changes in teaching practices, and how such changes relate to students' learning processes and outcomes (Entriza & Puspitasari, 2025).

Literacy and Numeracy as Learning Priorities

Literacy and numeracy are foundational competencies that influence students' readiness to engage with various fields of knowledge. Literacy involves the ability to understand, interpret, evaluate, and use information, whereas numeracy refers to the ability to apply mathematical concepts to interpret situations and solve problems encountered in everyday life (Ramadhani et al., 2025; Yeremias Bardi et al., 2025). Both competencies should be developed through an integrated approach across different subject areas.

Literacy policies and curriculum expectations in Indonesia indicate that literacy in educational documents extends beyond reading habits. It also encompasses comprehension, reasoning, information use, text production, and learning across subject areas. Research in this area highlights the importance of alignment among policy objectives, competency development across educational levels, assessment practices, and implementation guidelines in schools (Herayana et al., 2026).

Efforts to strengthen numeracy in Indonesia emphasize the relevance of pedagogical approaches that respond to students' cultural backgrounds and learning contexts. Research in this area also underscores the need to strengthen the empirical evidence supporting various approaches through broader and more sustained evaluation. Therefore, numeracy innovations should be evaluated based on

empirical evidence rather than novelty in instructional methods or learning media alone (Prahmana et al., 2026).

Strengthening literacy and numeracy requires learning experiences that encourage students to engage in close reading, discussion, writing, exploration, problem-solving, and the explanation of their reasoning. Teachers need to identify learning difficulties through appropriate assessments and design follow-up instruction based on individual learning needs. Family involvement and supportive school environments are also essential for establishing consistent learning habits (Hendratno et al., 2026).

Curriculum and Assessment Based on Learning Needs

The curriculum establishes the competencies students are expected to develop, while assessment helps teachers understand their learning progress (Nabilla Zaswita Selvia Dewi & Suci Afrinda, 2026). These two components must be closely aligned. When instruction is oriented toward competency development, assessment should not be limited to assigning grades; rather, it should provide meaningful information that can be used to improve the learning process.

A major challenge lies in ensuring alignment among learning objectives, teaching strategies, and assessment instruments (Akhria et al., 2026). For example, when learning objectives emphasize reasoning, assessment instruments should allow students to explain their reasoning or problem-solving processes rather than merely select an answer. Similarly, literacy assessment should consider students' ability to understand and use information rather than focusing exclusively on reading speed (A. S. Lubis et al., 2026).

Research on curriculum and assessment should provide sufficient information about the instruments used, data collection procedures, and the basis for

interpreting findings. Researchers should also distinguish between changes in test scores, improvements in competency, and changes in learning behavior, as these outcomes do not necessarily reflect the same underlying developments.

Local Culture and Character Development

Primary education aims not only to develop academic abilities but also to nurture students who demonstrate responsibility, empathy, integrity, and respect for diversity (Hikmah et al., 2026). In Indonesia, a country rich in languages, traditions, arts, and local knowledge, cultural resources can serve as meaningful learning materials that connect educational experiences with children's everyday lives (Yoma Hatima, 2025).

Folktales, traditional games, the natural environment, communal cooperation practices, and community knowledge can be integrated into learning activities in accordance with curriculum objectives. In Pancasila Education, local culture can be used to foster Pancasila values, including mutual cooperation, deliberation, tolerance, and responsibility, through activities and traditions rooted in local communities (M. Lubis & Harahap, 2025). Meanwhile, in language learning, folktales can support reading comprehension, writing skills, and students' understanding of social and cultural values (Amanda et al., 2025).

Character development cannot be achieved through verbal instruction or moral advice alone. Values such as responsibility, honesty, discipline, cooperation, and respect for differences need to be cultivated through teachers' role modeling, consistent routines, social interactions, and a supportive school climate.

CONCLUSION

Developments in primary education research in Indonesia highlight the importance of an integrated approach that connects teacher professionalism, literacy

and numeracy development, curriculum and assessment alignment, and the use of local culture in learning. These four dimensions reinforce one another and should be advanced through research that is context-sensitive, methodologically rigorous, and relevant to students' educational needs. Research should serve as a foundation for reflection and the continuous improvement of primary education. The contribution of scholarly publications lies not only in expanding the body of knowledge but also in helping educational communities develop a deeper understanding of existing challenges and formulate evidence-based, accountable strategies for improvement. With this commitment, the continued development of primary education research is expected to support learning that is high-quality, inclusive, contextually relevant, and oriented toward the holistic development of every student.

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