

Analysis of Difficulties in Developing Teaching Modules for Elementary School Teachers: Case Study of Teachers at SDN Sukapura I in 2025/2026

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ABSTRACT

Implementing the Merdeka Curriculum requires elementary school teachers to develop comprehensive teaching modules independently; however, many teachers encounter substantial difficulties in meeting this demand. This study aims to analyze the difficulties elementary school teachers face in developing teaching modules for implementing the Merdeka Curriculum. A qualitative descriptive approach with a case study design was employed. Data were collected through in-depth interviews with six classroom teachers to explore their understanding, experiences, and actual obstacles in the module development process. The findings reveal that teachers experience difficulties in understanding the structure and components of teaching modules, formulating learning objectives aligned with Learning Outcomes and the Learning Objective Flow, designing student-centered learning activities, and developing authentic assessments. High administrative workloads, limited time, insufficient training, low digital literacy, and limited institutional support further exacerbate these challenges. The study concludes that strengthening teacher capacity, providing continuous professional development, and enhancing institutional support are essential to ensure that teaching modules effectively support learning in accordance with the principles of the Merdeka Curriculum.

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1. INTRODUCTION

Education strongly influences the future generation of a nation, shaping both competence and character. Educated individuals are better prepared to face social, cultural, technological, and economic challenges. The government continues to update and develop curricula that align with the demands of the times and societal needs in an effort to improve

the overall level of Education nationwide [1]. The *Kurikulum Merdeka*, which prioritizes student-centered learning and the development of competencies and character in accordance with the Pancasila Student Profile, is one of the significant innovations currently being developed by the Ministry of Education, Culture, Research, and Technology. In its implementation, the *Kurikulum Merdeka* requires teachers to act as designers of learning experiences rather than merely curriculum implementers. To achieve this, teachers must develop teaching modules that are relevant, contextual, and aligned with students' needs [2]. Teaching modules serve as key instruments because they provide comprehensive guidance for learning implementation, covering learning objectives, instructional strategies, media selection, and assessment. Therefore, the quality of teaching modules greatly determines the success of classroom learning.

Research conducted by Capah [3] emphasizes that learning modules are flexible instructional tools that allow teachers to adapt learning designs to the school context. Beyond administrative components, teaching modules require teachers' analytical skills and creativity to design meaningful learning experiences [4]. However, various reports indicate that many elementary school teachers still struggle to develop teaching modules independently. Data from the East Java Provincial Statistics Agency [4] show that approximately 72% of elementary school teachers struggle to understand the structure of teaching modules, particularly in developing the Learning Objective Flow (*Alur Tujuan Pembelajaran ATP*) and the Learning Objectives (*Tujuan Pembelajaran TP*). These difficulties lead teachers to replicate the structure of previous lesson plans (RPP) or to use ready-made modules without contextual adaptation. This condition indicates a gap between curriculum demands and teachers' capacity to develop high-quality teaching modules.

Several factors contribute to teachers' difficulties in developing teaching modules [4]. First, regarding pedagogical competence, many teachers have not fully understood key concepts of the *Kurikulum Merdeka*, such as differentiation, formative assessment, and project-based learning. Second, technical skills in formulating learning objectives and indicators, as well as in designing learning activities that develop 21st-century skills, are often inadequate. Third, administrative and managerial constraints further burden teachers. Limited time, high administrative demands, and a lack of continuous professional development make it difficult for teachers to develop teaching modules tailored to students' needs. Research by Juniarti [5] also confirms that insufficient institutional support, such as inactive Teacher Working Groups (Kelompok Kerja Guru KKG) or minimal academic supervision, hinders the development of high-quality teaching modules.

This phenomenon is evident in a study conducted at SD Negeri 2 Karanganyar, Malang (2024). The report found that most teachers struggled to transform learning objectives into coherent, competency-oriented learning activities. Many teachers used modules or lesson plans from the *Merdeka Mengajar* platform without adjusting them to students' characteristics. Teachers also reported being overwhelmed by increasing administrative demands, which prevented them from prioritizing the development of teaching modules. These findings are consistent with the study by Ningsih et al. [6], which states that teachers require continuous mentoring rather than one-time training. In the context of primary Education, developing teaching modules is not merely an administrative

obligation but a professional activity that requires careful planning, creativity, and solid pedagogical understanding.

Theoretically, the development of teaching modules requires a systematic, methodical approach [7]. Teachers must be able to conduct learning needs analyses, formulate learning outcomes and indicators, select appropriate instructional methods, and design authentic assessments as integral components of the learning process [8]. However, challenges have intensified as educational technology advances [9]. Teachers are expected to use various digital platforms, such as Google Classroom, Canva for Education, and Merdeka Mengajar, to develop digital teaching modules. Unfortunately, numerous studies indicate that teachers' digital literacy levels remain low, particularly in rural areas. Unequal access to devices and internet connectivity further widens the gap in instructional innovation [10].

Technological advancements also present new opportunities for teachers. Digital teaching modules can enrich students' learning experiences through multimedia content and interactive activities [11]. However, limited digital literacy prevents some teachers from fully utilizing these features. This condition further highlights the disparity between urban and rural schools [12]. Based on these problems and gaps, this study aims to analyze the difficulties elementary school teachers face in developing teaching modules for implementing the Kurikulum Merdeka, focusing on both the development process and the influencing factors within a specific school context. This study also seeks to identify patterns of constraints related to pedagogical competence, technical skills, workload, institutional support, and digital literacy.

As a problem-solving effort, this research is designed to generate contextual findings that can serve as a basis for developing more targeted professional development programs, continuous mentoring systems, and policy recommendations. By deeply examining teachers' lived experiences, this study is expected to contribute theoretically to the discourse on curriculum implementation and instructional design, and practically to provide recommendations for strengthening teacher capacity and institutional support systems.

Ultimately, the findings of this research are expected to help ensure that teaching modules function not merely as administrative documents but as effective pedagogical instruments that genuinely support student-centered learning in accordance with the principles of the Kurikulum Merdeka.

2. METHOD

This study employed a qualitative case study design. The qualitative approach was chosen because the study aimed to obtain an in-depth understanding of the analytical processes elementary school teachers use to develop learning modules, as well as the challenges they face in implementing the *Kurikulum Merdeka*. Grajzel [13] defines qualitative research as the study of complex and contextual phenomena, in which the researcher plays a central role in data collection and interpretation. This method enables researchers to gain a deep understanding of participants' experiences, perspectives, and the meanings they attribute to the phenomena under investigation.

A case study design was selected because it allows for an in-depth examination of teachers' real-life experiences under specific conditions, particularly the process of developing learning modules for the *Kurikulum Merdeka* program in elementary schools. According to Robert [14], case-based research is appropriate for studying contemporary phenomena in real-life contexts, especially when the boundaries between the phenomenon and its context are not clearly defined. Case study research enables researchers to explore causal factors, relationships, and underlying meanings related to teachers' challenges.

This study also aims to provide contextual understanding rather than statistical generalization. Therefore, its primary objective is to describe teachers' experiences comprehensively and to reveal the relationships among pedagogical knowledge, technical skills, and managerial constraints in the development of learning modules. This approach is consistent with the findings of Famulaqih and Lukman [7], who argue that developing effective mentoring and instructional strategies in elementary schools requires a contextual understanding of teachers' experiences.

3. RESULTS AND DISCUSSION

Challenges

Based on interviews with six teachers at SDN Sukapura I, it was found that the challenges faced in developing teaching modules were diverse and complex. Teacher 1 reported difficulty in finding reference examples of teaching modules that matched classroom needs, indicating limited access to contextual reference sources. Teacher 2 experienced difficulties in adapting modules to students' needs, particularly due to differences in abilities and characteristics among students within the same classroom.

In addition, Teacher 3 stated that limited time due to extensive administrative tasks was a major obstacle to developing teaching modules. This indicates that teachers' workload directly affects the quality of instructional planning. Teacher 4 highlighted a lack of understanding of the development of Learning Outcomes (Capaian Pembelajaran CP) and the Learning Objective Flow (*Alur Tujuan Pembelajaran - ATP*), which are essential components of the *Kurikulum Merdeka*. Meanwhile, Teacher 5 and Teacher 6 experienced difficulties in determining appropriate instructional methods and assessments, indicating a need for further improvement in teachers' pedagogical competence in designing effective, measurable learning.

Difficulties

Interview results showed that each teacher experienced difficulties in different parts of the teaching module. Teacher 1 stated that formulating learning objectives was the most challenging aspect, as these objectives must align with learning outcomes and students' needs. Teacher 2 experienced difficulties in designing engaging, easily understandable Student Worksheets (*Lembar Kerja Peserta Didik - LKPD*), indicating challenges in creating meaningful learning activities.

Teacher 3 struggled to develop a coherent, systematic sequence of learning activities, while Teacher 4 encountered difficulties selecting high-quality, relevant instructional media. Teacher 5 emphasized difficulties in objectively assessing student learning outcomes, and

Teacher 6 faced challenges in developing concise, clear, and comprehensible learning materials. These findings indicate that developing teaching modules requires a range of skills, from goal planning to learning evaluation.

Sources Used in Developing Teaching Modules

In developing teaching modules, teachers utilized various learning resources. Teacher 1 relied on internet sources and modules provided by the Education office; Teacher 2 relied on textbooks and information from senior teachers; Teacher 3 relied on the *Merdeka Mengajar* platform. Teacher 4 used instructional videos from YouTube and example modules from other schools; Teacher 5 accessed thematic textbooks and educational journals; and Teacher 6 utilized educational blogs and training materials from previous professional development activities.

The diversity of these sources reflects teachers' efforts to enrich learning materials. However, reliance on external resources also indicates that teachers still require more systematic guidance in developing teaching modules that align with the school context and students' characteristics.

Frequency of Teaching Module Revisions

The frequency of teaching module revisions varied among teachers. Teacher 1 revised modules almost every semester, while Teacher 2 and Teacher 3 revised modules only when there was an urgent need. Teacher 4 regularly revised modules after instructional implementation, Teacher 5 revised modules at the beginning of each academic year, and Teacher 6 revised modules based on feedback from the school principal. This variation indicates differences in teachers' levels of reflection and evaluation regarding the teaching modules used. Teachers who routinely revised their modules tended to demonstrate greater awareness of the importance of aligning modules with real classroom conditions.

Support Needed by Teachers

Based on interview results, teachers expected various forms of support to improve the effectiveness of the teaching module development process. Teacher 1 and Teacher 6 emphasized the need for practical training and workshops on teaching module development. Teacher 2 requested more comprehensive module references, while Teacher 3 requested a reduction in administrative workload. Teacher 4 required mentoring from senior teachers, and Teacher 5 highlighted the importance of more adequate learning facilities. These findings indicate that support from schools and policymakers is crucial to helping teachers overcome difficulties in developing teaching modules.

Teachers' Efforts to Improve the quality of Teaching Modules

To improve the quality of teaching modules, teachers undertook various efforts. Teacher 2 sought references from multiple sources; Teacher 3 participated in training programs; Teacher 4 adapted materials from existing modules; Teacher 5 developed more engaging teaching approaches; and Teacher 6 requested feedback from students. These

efforts demonstrate teachers' awareness of the importance of continuous improvement and independent development of teaching modules.

Strategies for Overcoming Difficulties in Module Development

In overcoming difficulties, teachers applied collaborative and reflective strategies. Teacher 1 and Teacher 6 engaged in discussions with experienced teachers and colleagues; Teacher 2 utilized online forums; Teacher 3 used existing module examples; Teacher 4 learned from previous experiences; and Teacher 5 managed time more effectively. These strategies indicate that collaboration and time management are critical factors in addressing difficulties in teaching module development.

Need for Additional Training

Teachers expressed the need for additional training in various areas, including the use of educational technology (Teacher 1), assessment development (Teacher 2), engaging instructional methods (Teachers 3 and 6), and understanding the Kurikulum Merdeka (Teachers 4 and 5). This indicates that enhancing teachers' competencies remains essential to support optimal curriculum implementation.

Evaluation of School Support

Most teachers perceived that school support was present but still required improvement. Teachers expected more frequent training, more adequate learning resources, and more intensive mentoring in teaching module development. This finding indicates a gap between teachers' needs and the support schools provide.

Teachers' Expectations for Future Teaching Module Development

Teachers hoped that future teaching module development would be conducted more collaboratively and sustainably and supported by clear policies. They expected teaching modules to be flexible, easily accessible, and supported by high-quality learning resources and continuous training. These expectations reflect teachers' aspirations to improve overall learning quality.

The findings of this study indicate that elementary school teachers continue to face various difficulties in developing teaching modules, despite the *Kurikulum Merdeka* requiring them to design flexible, student-oriented learning. Qualitative findings from interviews reveal that teachers' challenges extend beyond the technical aspects of module writing to include conceptual understanding, creativity, and limited institutional support. The first finding shows that teachers still struggle to understand the structure and components of teaching modules. This aligns with Azhar et al. [15], who argue that curriculum changes are often not accompanied by teachers' readiness to understand new instructional documents and tools. Several teachers in this study reported difficulties in aligning CP, ATP, learning objectives, and assessment. This condition is reinforced by Widyanto and Wahyuni [16], who explain that many teachers remain confused about translating learning outcomes into operational instructional activities.

Beyond conceptual understanding, teachers also face challenges in designing assessments that are relevant and authentic. Teacher 6, for instance, stated that formulating appropriate assessments was the most difficult part of teaching module development. Similar difficulties were identified by Rosidah et al. [8], who explained that authentic assessment in the *Kurikulum Merdeka* requires higher analytical skills than traditional assessment. Teachers must be able to assess processes, products, and student performance, which is difficult without adequate training.

Furthermore, the choice of reference sources used by teachers shows significant variation. Teachers utilized internet resources, the *Merdeka Mengajar* platform, modules from other schools, and textbooks as references in developing teaching modules. This phenomenon aligns with Dewantara et al. [17], who found that teachers tend to seek readily accessible online resources. However, reliance on non-standardized sources may affect the consistency of module quality. This situation is understandable given the high level of flexibility offered by the *Kurikulum Merdeka*, which simultaneously creates confusion regarding appropriate reference standards.

Interview results also revealed differences in teachers' revision habits for teaching modules. Teacher 4 revised the modules regularly after each teaching session, whereas the other teachers revised them only when necessary. Teachers' reflective literacy emerged as a key determinant of teaching module quality. This finding is consistent with Gumilar et al. [18], who emphasize the importance of continuous reflection in improving instructional design. Without reflective practices, teaching modules are unlikely to evolve or remain responsive to students' needs.

School environment support also emerged as a critical factor. All teachers expressed the need for training, learning facilities, sufficient preparation time, and intensive mentoring to produce high-quality teaching modules. This finding is supported by Siregar [19], who states that the implementation of the *Kurikulum Merdeka* is strongly influenced by the level of institutional support, particularly in terms of training and resource provision. This relevance is further emphasized by the Ministry of Education [20], which asserts that teachers should not be left to interpret curriculum policies independently.

Overall, this discussion demonstrates that teachers' difficulties in developing teaching modules are multidimensional. These challenges stem not only from individual teacher competencies but also from insufficient mentoring, limited standardized references, high workloads, and curriculum demands that require creativity and critical thinking. Masau and Arismunandar [21] also show that instructional innovation can only be achieved when teachers receive continuous support, both through training and active learning communities. By integrating questionnaire and interview findings and supported by previous research, it can be concluded that teaching module development requires serious attention from multiple stakeholders. Teachers need strong competencies, adequate references, sufficient time, and sustained institutional support to ensure that teaching modules function effectively within the *Kurikulum Merdeka*.

4. CONCLUSION

This study highlights that developing teaching modules within the Merdeka Curriculum framework remains a multidimensional challenge for elementary school teachers. The findings indicate that teachers' difficulties are not solely technical but are also interconnected with conceptual understanding, pedagogical competence, workload management, digital literacy, and institutional support systems. The complexity of module development reflects the broader challenge of transforming teachers' roles from curriculum implementers into learning designers. From a practical perspective, these findings imply that improving the quality of teaching modules requires systemic intervention rather than isolated training sessions. Sustainable professional development programs, structured mentoring, strengthened Teacher Working Groups (KKG), and reduced administrative burdens are essential to enhance teachers' capacity. At the policy level, schools and educational authorities should prioritize continuous academic supervision and provide accessible, contextualized module references to ensure alignment with curriculum standards while maintaining flexibility.

This study is limited by its focus on a single school context and a small number of participants, which restricts the generalizability of the findings. Additionally, the research relies primarily on interview data, which reflect teachers' perceptions and experiences but do not directly assess the quality of the teaching modules produced. Therefore, the conclusions should be interpreted within the scope of this qualitative case study. Future research is recommended to involve multiple schools across different regions to obtain comparative perspectives and broader contextual variation. Quantitative or mixed-methods approaches could also be employed to measure the relationships among teachers' competencies, institutional support, and the actual quality of teaching modules. Further studies may explore intervention-based research to evaluate the effectiveness of mentoring programs or digital literacy training in improving module development skills.

Overall, this research contributes to the broader discourse on curriculum reform implementation by providing contextual evidence of the challenges teachers face at the elementary level. For the general public and educational stakeholders, this study underscores the importance of collaborative responsibility in educational transformation. Strengthening teacher capacity and institutional support is not merely an internal school matter but a strategic investment in ensuring that curriculum reforms genuinely improve learning quality and student outcomes.

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REFERENCES

- [1] D. Ilham, "Peran Pemerintah Dalam Mendorong Kualitas Pelayanan Pendidikan Di Indonesia," No. December, 2023, Doi: <https://doi.org/10.61076/jpp.v5i2.3736>.
 - [2] D. Nengsih And W. Febrina, "Pengembangan Modul Ajar Kurikulum Merdeka," No. 137, 2021, Doi: <https://doi.org/10.35446/diklatreview.v8i1.1738>.
 - [3] A. Capah, K. I. T, F. Mardayanti, And S. Q. Sitorus, "Hambatan Yang Di Hadapi Guru Sd Dalam Merancang Modul Ajar Di Kurikulum Merdeka," Pp. 28–39, 2025, Doi: <https://doi.org/10.62383/dilan.v2i2.1429>.
 - [4] D. Diarera And W. N. Budiarti, "Optimalisasi Kurikulum Merdeka Melalui Pembelajaran Diferensiasi: Menggali Konsep, Implementasi, Dan Dampaknya," Vol. 7, No. 3, Pp. 2114–2121, 2024, Doi: <https://doi.org/10.20961/shes.v7i3.92643>.
 - [5] Novi Dian Juniarti, "Optimalisasi Peran Kelompok Kerja Guru (Kkg) Dalam Peningkatan Kompetensi Guru Dan Kualitas Pembelajaran Di Gugus Ix Kecamatan Janapria Kabupaten Lombok Tengah," *Bada'a: Jurnal Ilmiah Pendidikan Dasar*, Vol. 7, No. 2, Pp. 228–233, 2025, Doi: [10.37216/badaa.v7i2.2291](https://doi.org/10.37216/badaa.v7i2.2291).
 - [6] D. N. Ningsih *Et Al.*, "Pelatihan Penyusunan Modul Ajar Yang Inovatif, Adaptif, Dan Kolaboratif," Vol. 3, No. 1, Pp. 82–92, 2022.
 - [7] S. Famulaqih And A. Lukman, "Pengembangan Bahan Ajar Modul Pembelajaran," Vol. 1, No. 2, 2024, Doi: <https://doi.org/10.61132/karakter.v1i4.156>.
 - [8] C. T. Rosidah, P. Pramulia, And W. Susiloningsih, "Analisis Kesiapan Guru Mengimplementasikan Asesmen Autentik Dalam Kurikulum Merdeka Belajar," *Jurnal Pendidikan Dasar*, Vol. Vol 12 No, No. 1, Pp. 87–103, 2021.
 - [9] F. Rejeki And S. Zebua, "Analisis Tantangan Dan Peluang Guru Di Era Digital," Vol. 3, No. 1, Pp. 21–28, 2023, Doi: <https://doi.org/10.25008/jitp.v3i1.55>.
 - [10] R. Setiawati, E. S. Ningsih, And B. D. Lukitoaji, "Inovasi Pembelajaran Digital: Solusi Mengatasi Keterbatasan Pendidikan Di Daerah Terpencil," *Basica Academica: Jurnal Pendidikan Anak Sekolah Dasar*, Vol. 1, No. 1, Pp. 53–59, 2025.
 - [11] K. Firdaus And M. R. Itonga, "Peran Teknologi Dalam Mengatasi Krisis Pendidikan," Vol. 9, No. 1, Pp. 43–57, 2024, Doi: <https://doi.org/10.46245/543> Abstrak.
 - [12] H. Juhara, A. N. J. Pamungkas, T. R. Firmansyah, I. S. Patimah, And A. S. Bahri, "Problematika Sistem Pendidikan Nasional," Vol. 3, Pp. 14–18, 2025, Doi: <https://doi.org/10.62070/kaipi.v3i1.229>.
 - [13] K. Grajzel, "Meditation In Qualitative Research For Bracketing And Beyond," *International Journal Of Qualitative Methods*, Vol. 24, Pp. 1–10, 2025, Doi: [10.1177/16094069241312826](https://doi.org/10.1177/16094069241312826).
 - [14] Y. Robert, *Case Study And Applications: Design And Methods (6th Ed.)*, Vol. 11, No. 1. 2016.
 - [15] M. Azhar, H. Wahyudi, And D. Yolanda, "Integrasi Teknologi Dalam Buku Ajar : Menyongsong Keterampilan Abad 21," *Uluwwul Himmah Education Research Journal*, Vol. 1, No. 1, Pp. 43–55, 2024.
 - [16] I. P. Widyanto And E. T. Wahyuni, "Implementasi Perencanaan Pembelajaran," *Satya Sastraharing*, Vol. 04, No. 02, Pp. 16–35, 2020.
 - [17] A. H. Dewantara, A. B, And Harnida, "Kreativitas Guru Dalam Memanfaatkan Media Berbasis It Ditinjau Dari Gaya Belajar Siswa," *Journal Of Primary Education*, Vol. 1, No. 1, Pp. 15–28, 2020.
 - [18] G. Gumilar, D. P. S. Rosid, Harsono, And Minsih, "Peranan Supervisi Dalam Meningkatkan Kualitas Pembelajaran Berkelanjutan," *Jurnal Ilmiah Pendidikan Citra Bakti*, Vol. 11, No. 3, Pp. 651–661, 2024, Doi: [10.38048/jipcb.v11i3.3189](https://doi.org/10.38048/jipcb.v11i3.3189).
 - [19] T. R. A. Siregar, A. A. Misna, E. Erlinda, M. Sulaiman, And S. Shofiyyah, "Analisis Kesiapan Guru Dalam Penerapan Kurikulum Merdeka Di Sekolah," *Ibtida'i : Jurnal Kependidikan Dasar*, Vol. 11, No. 2, Pp. 189–204, 2024, Doi: [10.32678/ibtidai.v11i2.11158](https://doi.org/10.32678/ibtidai.v11i2.11158).
 - [20] Kemendikdasmen, "Panduan Pembelajaran Dan Asesmen," *Badan Standar, Kurikulum, Dan Asesmen Pendidikan Kementerian Pendidikan, Kebudayaan, Riset, Dan Teknologi Republik Indonesia*, P. 123, 2022.
 - [21] D. Masau And A. Arismunandar, "Peran Guru Penggerak Dalam Mensukseskan Implementasi Kurikulum Merdeka Di Sekolah Dasar," *Jurnal Riset Dan Inovasi Pembelajaran*, Vol. 4, No. 1, Pp. 163–173, 2024, Doi: [10.51574/jrip.v4i1.1378](https://doi.org/10.51574/jrip.v4i1.1378).
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