

Original Research Article

The Use of Digital Technology in Implementing the Merdeka Curriculum: Evidence from an Elementary School in Eastern Indonesia

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Abstract: Digital transformation has driven the use of technology as a crucial component in the implementation of the Merdeka Curriculum; however, its application in elementary schools in resource-constrained areas still faces various challenges. This study aims to evaluate the use of digital technology in the implementation of the Merdeka Curriculum in second-grade classrooms at SD Inpres Seringgu, Merauke, South Papua. The study employed a descriptive qualitative approach using the Context, Input, Process, and Product (CIPP) evaluation model. Data were collected through observations, interviews, and documentation from eight purposively selected informants, including the principal, vice principal, teachers, and school staff/teachers. Data analysis was conducted interactively through data condensation, data presentation, and the drawing and verification of conclusions, with triangulation used to strengthen data validity. The results indicate that digital technology is highly relevant to learning needs; however, teacher readiness, device availability, and connectivity continue to limit its implementation. Technology has been utilized to support the delivery of content, learning activities, and assessment, although its use has not been consistent. Identified benefits include increased engagement, understanding, monitoring, and learning feedback. The study concludes that there is a gap between the relevance of digital technology and the capacity for its implementation. Strengthening infrastructure, connectivity, teacher competencies, collaborative learning, and institutional support is necessary to achieve more consistent and sustainable technology integration.

Keywords: CIPP, Merdeka Curriculum, Digital Learning, Elementary Schools, Digital Technology.

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1. INTRODUCTION

Digital transformation has reshaped educational practices by expanding the use of technology in the planning, implementation, and evaluation of learning. In elementary education, digital technology can provide more diverse learning resources, support interactive learning, and increase student engagement. However, effective technology integration is determined not only by the availability of devices but also by how technology is used to support pedagogical goals and learning needs (Consoli *et al.*, 2023). Teachers' digital competencies are therefore a key element in ensuring that the use of technology adds value to the learning process (Claro *et al.*, 2024).

Although the use of educational technology continues to grow, its implementation has not been uniform. Schools in areas with limited resources face more complex challenges in integrating technology into

learning. Limitations in devices, internet connectivity, teachers' digital competencies, and institutional support can hinder the sustainable use of technology. Mustafa *et al.*, (2024) demonstrate that schools in rural areas face various barriers to technology integration, while Li (2025) identifies a gap between teachers in urban and rural areas regarding TPACK competencies and attitudes toward technology integration. These conditions indicate that the digital transformation of education must be understood by considering the social, institutional, and geographic contexts in which technology is applied.

In the Indonesian context, the use of digital technology in learning has gained increasing prominence through the implementation of the Merdeka Curriculum. This policy provides schools and teachers with the flexibility to design learning experiences based on students' needs, characteristics, and abilities. Its implementation is guided, among other things, by

Decision of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia No. 56/M/2022 on Guidelines for the Implementation of the Curriculum in Support of Learning Recovery (Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia, 2022). At the elementary school level, the use of technology can support the provision of more diverse learning media and resources (Zulfa *et al.*, 2023), including the use of digital multimedia in the delivery of learning materials (Rahayu *et al.*, 2024).

However, the flexibility of the Merdeka Curriculum does not automatically guarantee the successful integration of technology in every school. Its implementation is heavily influenced by the availability of resources, teacher competencies, digital infrastructure, school support, and the characteristics of the educational environment. These issues are particularly important in the context of schools in eastern Indonesia, which may face resource and infrastructure conditions that differ from those in other regions. In the context of this study, the use of digital technology in the second-grade classroom at SD Inpres Seringgu, Merauke, still faces limitations in the number of devices, unstable internet access, uneven digital competencies among teachers, and time constraints in developing digital learning materials. At the same time, the school has been using various media—such as videos, images, animations, interactive presentations, quizzes, and digital learning resources—in the learning process. These conditions indicate a gap between the opportunities provided by policy and the capacity for technology implementation at the school level.

A number of previous studies have evaluated the implementation of the Merdeka Curriculum using the Context, Input, Process, and Product (CIPP) model in various educational contexts (Mukhdlor *et al.*, 2024; Nabila & Nadlir, 2025; Rusman *et al.*, 2025). Other studies have also demonstrated the relevance of the CIPP model as a framework for evaluating educational programs (Al-Shanawani, 2019; Neldawati & Yaswinda, 2022; Suri & Hariyati, 2024). However, these studies have primarily focused on evaluating the implementation of curricula or educational programs in general. Studies that specifically evaluate the use of digital technology in the implementation of the Merdeka Curriculum in lower elementary grades, particularly in the context of resource-constrained regions in eastern Indonesia, remain limited. At the same time, the international literature on technology integration in schools with limited resources highlights the importance of understanding the interplay between teacher competencies, infrastructure, institutional support, and local conditions (Mustafa *et al.*, 2024; Li, 2025). This gap creates an opportunity for a more context-specific evaluation of how national curriculum policies are translated into technology-based learning practices at the school level.

This study addresses this gap by evaluating the use of digital technology in the implementation of the Merdeka Curriculum in second-grade classrooms at an elementary school in Merauke, South Papua. Unlike previous studies that have placed greater emphasis on a general evaluation of the Merdeka Curriculum, this study focuses specifically on the use of digital technology and employs the CIPP framework to understand the interrelationships among implementation conditions, resource readiness, the learning process, and identified benefits. The second-grade context provides a perspective on technology use in the early stages of elementary education, while the research location—offers empirical evidence from eastern Indonesia, a region that remains relatively underrepresented in the literature on technology integration and the Merdeka Curriculum.

Based on these gaps, this study aims to evaluate the use of digital technology in the implementation of the Merdeka Curriculum in second-grade classrooms at SD Inpres Seringgu, Merauke, South Papua. Specifically, the study analyzes the implementation through the dimensions of context, input, process, and product; identifies factors that support and hinder the use of digital technology; and examines efforts to improve teacher performance in supporting technology-based learning. Through this perspective, the study is expected to provide a more contextual understanding of the implementation of digital technology within curriculum policies at elementary schools with limited resources and to offer implications for the development of digital learning that is more adaptable to local conditions.

2. LITERATURE REVIEW

2.1 Digital Technology Integration and Teacher Competence

The integration of digital technology in education is not only about the use of devices but also about the ability to connect technology with pedagogical goals. Consoli *et al.*, (2023) emphasize that the integration of technology in K–12 education must be understood based on the quality of its use in supporting learning, not merely the frequency of use. In elementary education, digital media can enrich the presentation of content and increase student engagement. Interactive learning media, for example, can support students' interest and motivation to learn (Ali *et al.*, 2025), while digital multimedia allows content to be presented through a combination of representations tailored to learning needs (Rahayu *et al.*, 2024).

The success of technology integration is heavily influenced by teachers' competencies. Digital competencies encompass the ability to select and use technology appropriately in pedagogical practice (Claro *et al.*, 2024). The Technological Pedagogical Content Knowledge (TPACK) framework emphasizes that effective technology use requires the integration of technological, pedagogical, and content knowledge

(Rahmadi, 2019; Farikah & Al Firdaus, 2020). These competencies are also related to teachers' acceptance of educational technology (Aslan Altan *et al.*, 2024). However, limitations in infrastructure, connectivity, teacher competencies, and institutional support remain challenges, particularly in schools with limited resources (Mustafa *et al.*, 2024; Li, 2025). Thus, technology integration must be understood as an interaction between teacher competencies, pedagogical practices, resource availability, and the school context.

2.2 Merdeka Curriculum and Digital Learning

The Merdeka Curriculum provides schools and teachers with the flexibility to develop learning experiences based on students' needs and characteristics. Its implementation is guided, among other things, by Decision of the Minister of Education, Culture, Research, and Technology of the Republic of Indonesia No. 56/M/2022 on Guidelines for Curriculum Implementation in Support of Learning Recovery (Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia, 2022). Within this framework, digital technology can be used to expand learning resources, develop instructional media, and support the learning and assessment processes. In elementary education, the use of technology can also help schools develop learning approaches that are more adaptable to resource constraints (Zulfa *et al.*, 2023).

However, policy flexibility does not always result in uniform implementation. The successful use of technology still depends on teacher readiness, infrastructure, school support, and the conditions of the educational environment. Evaluation studies of the Merdeka Curriculum indicate that implementation must be understood by considering resource readiness, the implementation process, and program outcomes (Mukhdlor *et al.*, 2024; Nabila & Nadlir, 2025; Rusman *et al.*, 2025). Therefore, the use of digital technology in the Merdeka Curriculum needs to be evaluated as part of the policy implementation process at the school level.

2.3 CIPP Model for Educational Evaluation

The Context, Input, Process, and Product (CIPP) model is an evaluation framework that allows a program to be analyzed comprehensively, from its needs to the results of its implementation. Context is used to identify needs and environmental conditions; input assesses the readiness of resources and strategies; process evaluates program implementation; while product identifies the program's outcomes and benefits. The CIPP model's focus on program evaluation and improvement makes it relevant for educational research (Al-Shanawani, 2019; Suri & Hariyati, 2024). This model has been used in various evaluations of educational programs and curricula (Neldawati & Yaswinda, 2022; Suri *et al.*, 2024), including evaluations

of the Merdeka Curriculum (Mukhdlor *et al.*, 2024; Nabila & Nadlir, 2025).

In this study, CIPP is used as the primary evaluation framework to analyze the use of digital technology in the implementation of the Merdeka Curriculum. "Context" is used to understand the needs and relevance of digital technology; "Input" assesses the readiness of teachers, facilities, and resources; "Process" evaluates the use of technology in learning; while "Product" identifies the perceived or observed benefits of the implementation. Using this framework, this study systematically evaluates the use of digital technology based on the needs and conditions of implementation (context), resource readiness (input), the conduct of technology-based learning (process), and the identified benefits of the implementation (product).

Based on the literature and the research's evaluation focus, the conceptual framework of this study integrates the use of digital technology in the implementation of the Merdeka Curriculum with the CIPP model, taking into account supporting and inhibiting factors as well as strategies for teacher professional development. The research framework is presented in Figure 1.

3. METHODS

3.1 Research Design and Setting

This study employs a descriptive qualitative approach to evaluate the use of digital technology in the implementation of the Merdeka Curriculum in second-grade classrooms. This approach was used to gain a contextual understanding of digital technology usage practices, implementation conditions, and the experiences of school stakeholders in the learning process. The study was conducted at SD Inpres Seringgu, Merauke Regency, South Papua Province, an elementary school with diverse social and cultural characteristics. The location was selected based on its relevance to the research focus on the use of digital technology in the elementary school learning process.

3.2 Participants

Research informants were selected using purposive sampling, which involves choosing individuals with relevant involvement and knowledge regarding the implementation of learning and the use of digital technology at the school. The study involved eight informants, consisting of one principal, one vice principal, five teachers, and one school administrator/teacher. This composition of informants allowed the study to gather perspectives from school leadership, instructional practitioners, and operational technology support staff.

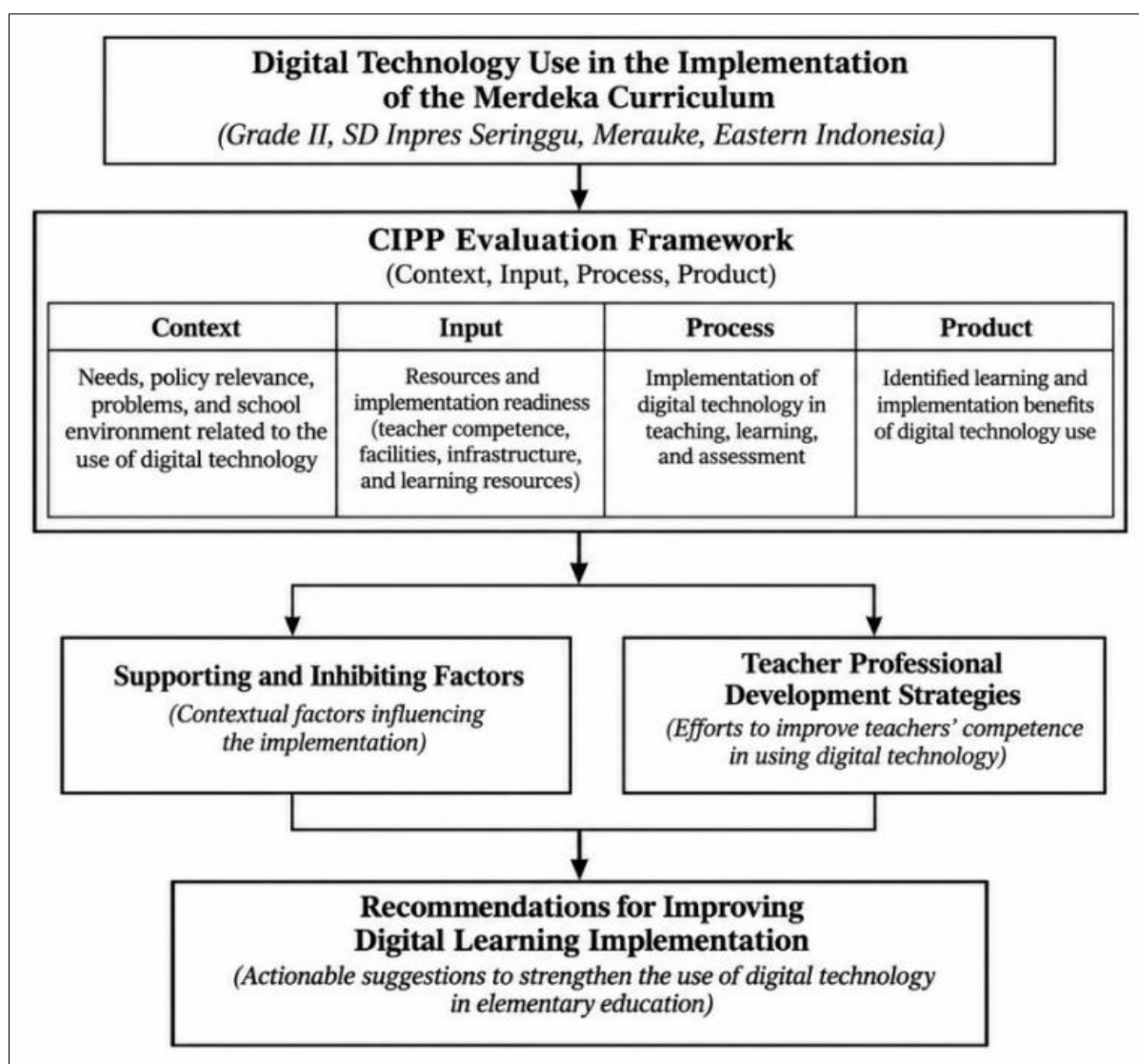


Figure 1: Conceptual Framework of the Study

Source: Developed by the authors based on the CIPP evaluation framework (Al-Shanawani, 2019; Suri & Hariyati, 2024).

Table 1: Research Participants

No.	Participant Category	Code	Number of Participants
1	Principal	P1	1
2	Vice Principal	VP1	1
3	Teachers	T1–T5	5
4	School Administrator/Teacher	SO1	1
	Total		8

Source: Research data

3.3 Data Collection

Data were collected through observation, interviews, and documentation. Observations were conducted directly during the learning process to observe the use of digital devices such as laptops, projectors, and internet access; teachers' instructional strategies; teacher-student interactions; and student engagement and responses in technology-based learning. Interviews were conducted with the principal, vice principal, teachers, and school administrators using interview guidelines developed based on the research focus.

Documentation was used to supplement the data through written documents, images, regulations, policies, and other documents relevant to the implementation of digital learning.

3.4 Evaluation Framework

The CIPP model (Context, Input, Process, and Product) was used as the primary framework for evaluating the use of digital technology in the implementation of the Merdeka Curriculum. Context was used to identify needs, issues, and environmental

conditions surrounding the implementation of digital technology; Input assessed the readiness of resources supporting the implementation; Process evaluated the implementation of technology use in learning activities; while Product identified the resulting learning benefits and outcomes of the implementation. In addition to these four dimensions, the analysis aims to identify supporting and hindering factors, as well as efforts to improve teacher performance in supporting the use of digital technology.

3.5 Data Analysis and Trustworthiness

Data were analyzed using the Miles and Huberman interactive analysis model, which was conducted continuously throughout the research process. The analysis included data collection, data reduction/condensation, data display, and conclusion drawing/verification. Data from interviews, observations, and documentation were selected and grouped based on the research focus and the CIPP dimensions, then presented to identify patterns and findings before conclusions were drawn and verified. The validity of the data was strengthened through triangulation, utilizing observations, interviews, and documentation as complementary data sources.

4. RESEARCH FINDINGS

The research results are presented based on the four dimensions of the CIPP evaluation model context, input, process, and product, followed by supporting and inhibiting factors as well as strategies for teacher professional development. In general, digital technology has been utilized in the implementation of the Merdeka Curriculum at SD Inpres Seringgu, although its use has not been consistent across all learning activities due to differences in teacher readiness, the availability of facilities and infrastructure, and technical conditions.

4.1 Context: Relevance and Need for Digital Technology

The context evaluation results indicate that the use of digital technology is considered relevant to the learning needs of second-grade students and the implementation of the “ ” Merdeka Curriculum. The principal and teachers view digital technology as a tool to support the learning process, not as the learning objective itself. The informants shared a relatively consistent view that digital technology is increasingly necessary to support more effective, engaging, and student-centered learning that aligns with the characteristics of elementary school students.

Digital technology is primarily seen as beneficial for presenting material through videos, images, animations, and educational apps. These media formats are considered suitable for second-grade students because they provide a more visual and interactive learning experience. Thus, the context evaluation reveals a strong need for the use of digital technology as well as alignment between its use, learning

needs at school, and the implementation of the Merdeka Curriculum.

4.2 Input: Teacher Readiness and Digital Infrastructure

The results of the input evaluation indicate limitations in the readiness of human resources as well as digital facilities and infrastructure. Teacher readiness is not yet uniform, as not all teachers consistently utilize digital technology in their teaching. Research data show that some teachers have not yet implemented technology-based learning due to limited devices, while others still face limitations in their mastery of technology.

Limitations were also found in facilities and infrastructure. The school already has basic technological facilities, but their number is not yet proportional to the number of learning groups. The school has two LCD projectors and one Smart TV, while there are 17 learning groups, including four second-grade learning groups. This situation means that the available devices must be used on a rotating basis.

These findings indicate that the school already has the initial resources to implement digital-based learning. However, teacher readiness and device availability are not yet fully adequate to support the consistent use of digital technology across all learning activities.

4.3 Process: Digital Technology Use in Classroom Learning

The results of the process evaluation show that digital technology has been used in learning activities, although the intensity of its use varies depending on the availability of facilities. Teachers utilize instructional videos, presentations via laptops and projectors, digital televisions, images, animations, educational songs, and interactive quizzes as learning support media. These media are used primarily to make the presentation of material more engaging and easier for second-grade students to understand. Informant T1 described this practice as follows:

“I utilize digital technology in teaching by using a laptop and projector to display materials, images, and educational videos, as well as interactive exercises that help students understand the material more easily.” (T1, Interview)

This statement aligns with interview data that explicitly indicates the teacher’s use of laptops, projectors, images, educational videos, and interactive exercises. Informant T2 also explained:

“I implement this by showing educational videos, displaying images, using quizzes, and playing educational songs or rhythms to help students understand the material more easily”

and become more enthusiastic about learning.”
(T2, Interview)

This statement is also directly recorded in the research interview data. At the school level, the implementation of technology-based learning is also monitored through academic supervision in the form of classroom visits, observations of the learning process, and evaluations of the teaching materials used by teachers. The results of supervision are then utilized as training materials to improve teachers' ability to use digital technology.

Nevertheless, digital technology is not yet used consistently in every learning activity. Teachers must adapt its use to the availability of school facilities. Power outages and unstable internet connections also affect the implementation of learning. Additionally, there are differences in students' technological proficiency, as well as limited access to digital devices and the internet at home.

4.4 Product: Identified Benefits of Digital Technology Use

The results of the product evaluation indicate a number of perceived benefits from the use of digital technology. Informants stated that the use of instructional videos, presentations, Google Forms, and Quizizz helps teachers conduct diagnostic and formative assessments, monitor student learning progress, and provide feedback during the learning process. Informants also observed increased student motivation, participation, self-confidence, and understanding when digital media were used in instruction.

However, these benefits have not been experienced equally by all students and classes. Differences in student abilities, teachers' digital

competencies, device availability, and internet connectivity still limit their implementation. Therefore, the benefits identified in this study should be understood as those reported and observed by informants in a qualitative study, not as quantitatively measured effects.

The informants also believe that technology-based learning needs to be continued and improved. Strengthening the program should primarily focus on adding digital facilities and infrastructure, improving internet connection quality, providing ongoing teacher training and mentoring, and ensuring adequate budgetary support.

4.5 Supporting and Hindering Factors

The research findings reveal several factors that support the use of digital technology in learning. These factors include policy support from the government and schools, the commitment of school principals and teachers, the availability of basic technological facilities, training through Teacher Working Groups (KKG) and the Department of Education, support from parents and the school committee, a conducive school environment, student enthusiasm, and the flexibility of the Merdeka Curriculum, which provides teachers with the freedom to innovate in their teaching.

On the other hand, the implementation of technology-based learning still faces several barriers. The main barriers include a limited number of digital devices, inadequate internet access, uneven digital proficiency among teachers, and limited school budgets. Teachers' workloads and limited time to attend training also pose challenges, in addition to differences in students' abilities to utilize technology. Findings regarding these supporting factors and barriers are summarized in Table 2.

Table 2: Factors Supporting and Hindering the Use of Digital Technology

Supporting Factors	Barriers
Government and school policy support	Limitations in digital devices and infrastructure
Commitment of school principals and teachers	Unstable and inadequate internet connectivity
Availability of basic technology facilities	Uneven digital competencies among teachers
Training through KKG and the Department of Education	Limited school budgets
Support from parents and the school committee	Workload and time constraints for attending training
A supportive school environment	Differences in students' digital skills
Flexibility of the Merdeka Curriculum	Unequal access to digital resources
Student enthusiasm	Technical challenges

Source: Research findings

These findings show that the availability of technology can be both a supporting factor and a limiting factor. The presence of digital facilities allows teachers to conduct technology-based learning, but the limited number of facilities means that their use cannot yet be implemented consistently across all classes.

4.6 Teacher Professional Development Strategies

Research findings indicate that improvements in teachers' ability to utilize digital technology are achieved through efforts by schools, the government, and teachers' own initiatives. Institutionally facilitated activities include training, workshops, technical guidance, seminars, and Teacher Working Group (KKG) activities. The government also provides support through

training and mentoring related to the implementation of the Merdeka Curriculum.

In addition to these formal activities, teachers independently develop their competencies through webinars, online courses and training, exploring learning applications, searching for learning resources on the internet, and sharing experiences with colleagues. Peer support among teachers is also part of the competency development process, particularly when teachers who are more tech-savvy assist colleagues who are still facing difficulties. Informant T2 explained:

“The government conducts regular training and technical guidance (bimtek) on the Merdeka Curriculum, both online and in-person. Schools organize school-level teacher working groups (KKG). In addition, teachers make independent efforts to take courses or participate in training.” (T2, Interview)

This statement was recorded directly in the research interview findings. Other informants also noted that seminars and training sessions are used to enhance teachers' understanding of interactive learning media, including online training.

Overall, strategies for teachers' professional development in the use of digital technology take three main forms: institutional training, collaborative learning among teachers, and self-directed competency development. These efforts are aimed at reducing the digital skills gap among teachers, although their implementation remains dependent on the availability of adequate technological facilities and infrastructure.

5. DISCUSSION

This study shows that the use of digital technology in the implementation of the Merdeka Curriculum is not solely determined by acceptance of the technology, but by the school's ability to transform these needs into sustainable learning practices. A synthesis based on the CIPP framework indicates a correlation between the relevance of technology, resource readiness, pedagogical practices, and identified benefits. Thus, the implementation of digital technology must be understood as a process that simultaneously involves the pedagogical, human resources, infrastructure, and institutional support dimensions.

5.1 Relevance and Readiness for Digital Technology Utilization

The high relevance of digital technology to learning needs indicates that acceptance of digitalization has taken root at the school level. However, this acceptance has not automatically resulted in adequate implementation capacity. The imbalance between digital needs and resource readiness suggests that successful implementation requires more than just recognition of the importance of technology.

This finding aligns with Consoli *et al.*, (2023), who emphasize that the integration of technology in K–12 education should not be assessed solely based on the availability or frequency of device use, but must also consider how technology supports pedagogical practices. In the context of the Merdeka Curriculum, this orientation is relevant to the flexibility in learning granted to educational institutions and teachers to tailor instruction to students' needs (Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia, 2022).

Limitations in the input dimension indicate that implementation capacity is influenced by a combination of teacher readiness and infrastructure conditions. This is consistent with Mustafa *et al.*, (2024), who found that technology integration in schools with limited resources is influenced by infrastructure, connectivity, funding, and teacher professional development. Li (2025) also notes that the digital divide in elementary education is not only related to access to technology but also to teachers' competencies and readiness. Meanwhile, Claro *et al.*, (2024) emphasize that teachers' digital competencies are multidimensional and relate to their ability to use technology in educational practice.

Thus, the findings of this study show that the relevance of technology and readiness for implementation are two distinct yet interrelated conditions. School policies and acceptance can create an environment that supports digitization, but consistent implementation still requires adequate teacher competencies, devices, and connectivity.

5.2 Integration of Technology into Teaching Practices

The diversity in the use of digital media indicates that technology has begun to become part of pedagogical practice, although the level of integration is still influenced by resource conditions. This is important because the use of technology does not stop at the mere availability of facilities but has been directed toward supporting the delivery of content, learning activities, and assessment.

These findings support the view of Consoli *et al.*, (2023) that technology integration must be understood based on its pedagogical function. The use of technology becomes more meaningful when it is linked to learning objectives and activities, rather than simply because devices are available in the classroom. These findings are also relevant to Rahayu *et al.*, (2024), who emphasize the use of digital multimedia in elementary school learning, as well as Ali *et al.*, (2025), who demonstrate the potential of interactive learning media in supporting students' interest and motivation to learn.

A key aspect of this study is teachers' ability to adapt their strategies when technology cannot be used optimally. Teachers continue to rely on non-digital learning alternatives when faced with technical

limitations. This pattern indicates pedagogical adaptation—that is, technology is used flexibly according to learning conditions, rather than as a complete replacement for conventional teaching practices.

In the context of schools with limited resources, this adaptation demonstrates that technology integration does not necessarily mean the continuous use of technology. A more realistic form of integration is the teacher's ability to select and use technology when it adds value to learning while maintaining alternative strategies when technical conditions are unsupportive.

5.3 Benefits of Implementation and Teacher Professional Development

The identified benefits indicate that the function of technology is evolving from a medium for delivering content to a tool that supports engagement, assessment, monitoring, and learning feedback. These findings align with Ali *et al.*, (2025) regarding the potential of interactive media to support interest and motivation in learning. Fahrni *et al.*, (2025) also indicate that digital technology can be used to support various learning practices, including instruction, scaffolding, and feedback.

However, these benefits must be understood in light of the study's design characteristics. Since this study is qualitative and does not involve experimental measurements, the identified benefits cannot be interpreted as evidence of a causal relationship between technology use and improved learning outcomes. Rather, the findings more accurately reflect the benefits perceived and observed by the informants during implementation. This distinction is crucial to ensure that the study's contributions do not exceed the available empirical evidence.

The sustainability of these benefits is also closely linked to teachers' professional development. Claro *et al.*, (2024) highlight the importance of digital competencies in teachers' professional practice, while Aslan Altan *et al.*, (2024) demonstrate that teachers' acceptance of educational technology is related to various factors that influence its use. In the context of schools with limited resources, Mustafa *et al.*, (2024) also identify professional development as a key component in overcoming barriers to technology integration.

The findings of this study show that competency improvement does not depend solely on formal training but also occurs through collaborative learning and self-directed development. Thus, institutional training, peer learning, and self-directed competency development can be viewed as complementary approaches. These approaches are relevant because technological changes require a

continuous process of competency development, not one-time training.

5.4 CIPP Synthesis and Research Contributions

A synthesis based on the CIPP framework shows that the four dimensions of implementation have not developed evenly. The Context dimension indicates relatively strong relevance and acceptance of digital technology use, while the Input dimension reveals more prominent limitations in supporting implementation. These input conditions are linked to inconsistent practices in the Process dimension, while benefits in the Product dimension are also not yet fully equitable. This pattern suggests that implementation outcomes cannot be separated from the conditions that precede and support the implementation process.

These findings reinforce the usefulness of the CIPP framework for comprehensively evaluating educational programs through the interrelationship between needs, resources, processes, and outcomes. The use of this framework is grounded in previous educational evaluation research (Al-Shanawani, 2019; Suri & Hariyati, 2024), including evaluations of the implementation of the Merdeka Curriculum (Mukhdlor *et al.*, 2024; Nabila & Nadlir, 2025). This study expands on that application by specifically focusing the evaluation on the use of digital technology in the implementation of the Merdeka Curriculum in elementary education.

The empirical contribution of this study lies in the context of elementary schools in Eastern Indonesia with limited resources. The findings reveal a gap between the relevance of digital technology and the capacity to implement it. Strong relevance and acceptance of technology do not automatically result in consistent use when resource readiness remains limited. These conditions are then linked to the consistency of the learning process and the equitable distribution of identified benefits. Thus, the digitization of learning must be understood as a process of aligning pedagogical needs, teacher competencies, infrastructure, connectivity, and institutional support.

The implication of these findings is that efforts to strengthen digital learning should not be directed solely toward adding devices. Infrastructure and connectivity need to be developed in tandem with improvements in teacher competencies, collaborative professional learning, academic supervision, and institutional support. Such an integrated approach can help schools move from situational use of technology toward more consistent and sustainable pedagogical integration.

6. CONCLUSION

This study shows that the use of digital technology in the implementation of the Merdeka Curriculum at SD Inpres Seringgu has been deemed

relevant and has begun to be integrated into teaching practices, but its implementation has not yet been consistent. Based on the CIPP evaluation, the context dimension indicates a strong need for and acceptance of digital technology, while the input dimension still faces limitations in terms of teachers' digital competencies, device availability, and connectivity. In the process dimension, technology has been utilized to support the delivery of content, learning activities, and assessment, but its use is still adapted to available resources. Meanwhile, the product dimension indicates perceived benefits in student engagement, understanding, monitoring, and learning feedback, although these benefits are not yet evenly distributed and cannot be interpreted as causal relationships.

Overall, this study reveals a gap between the relevance of digital technology and the capacity for its implementation, particularly in the context of elementary schools with limited resources in Eastern Indonesia. The sustainability of technology integration therefore requires an approach that focuses not only on providing devices but also on strengthening connectivity, the continuous development of teacher competencies, collaborative learning among teachers, academic supervision, and institutional support. Alignment between context, input, process, and product is essential so that the use of technology can evolve from situational practices toward more consistent and sustainable pedagogical integration in the implementation of the Merdeka Curriculum.

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