

Implementing a Digital Learning Media Policy to Support Elementary School Students' Learning Motivation: A Case Study at SDN 001 Barong Tongkok

Peronika¹, Agus Sholahuddin², Wahyu Wiyani³
^{1,2,3}Merdeka University, Indonesia



DOI : <https://doi.org/10.61796/ijblps.v3i7.521>



Sections Info

Article history:

Submitted: April 25, 2026
Final Revised: May 20, 2026
Accepted: June 15, 2026
Published: July 31, 2026

Keywords:

Public policy implementation
Education policy
Educational governance
Digital learning media
Student learning motivation

ABSTRACT

Objective: This study examined the implementation of the policy on digital learning media use at SDN 001 Barong Tongkok, Kutai Barat Regency, with particular attention to instructional planning, instructional implementation, learning process assessment, and its perceived contribution to students' learning motivation under Permendikbudristek Number 16 of 2022. **Method:** A qualitative descriptive design was employed with 13 informants, including the principal, teachers, the school operator, and education staff. Data were collected through semi-structured interviews, classroom observations, questionnaires, and documentation. Questionnaire responses were summarized using frequencies and percentages to support qualitative interpretation. **Results:** Policy implementation was generally perceived positively. In instructional planning, 10 informants (76.92%) strongly agreed and 3 (23.08%) agreed; in instructional implementation, 11 (84.62%) strongly agreed and 2 (15.38%) agreed; and in learning process assessment, 9 (69.23%) strongly agreed, 3 (23.08%) agreed, and 1 (7.69%) disagreed. Digital media were perceived to support students' interest, attention, enthusiasm, confidence in asking and answering questions, persistence, and classroom participation. Supporting factors included principal leadership, teacher competence and innovation, digital facilities, internet access, technical assistance, parental and school committee support, and positive student responses. Barriers included insufficient devices, unstable internet connectivity, uneven teacher competence, limited preparation time, differences in students' digital literacy, budget constraints, and inconsistent use across classrooms. **Novelty:** By integrating policy implementation, instructional processes, organizational capacity, and student motivation within a single elementary school case, this study shows that meaningful digital learning depends on leadership, teacher capacity, technical support, and institutional consistency rather than on technology availability alone.

INTRODUCTION

Elementary education plays a central role in developing students' academic abilities, learning habits, and motivation. Success at this level is reflected not only in mastery of subject matter but also in students' attention, interest, persistence, and engagement throughout the learning process. Technological advances provide schools with opportunities to create more visual, interactive, and varied learning experiences through videos, animations, applications, digital quizzes, and internet-based learning resources. Nevertheless, the availability of technology does not automatically improve instructional quality. To provide meaningful learning experiences, digital media must be aligned with instructional objectives, student characteristics, teacher competence, and school conditions [1], [2].

The integration of technology into education in Indonesia intensified after the COVID-19 pandemic demonstrated the importance of school readiness for managing

digital learning. The government subsequently expanded digitalization initiatives by providing devices, learning materials, digital platforms, and professional development for educators. In 2025, the National Learning Digitalization Program was designed to reach 288,865 elementary and secondary education institutions. The program included the provision of digital interactive boards, laptops, digital learning materials, and training for approximately 64,000 teachers. A total of 215,572 devices had been distributed, of which approximately 173,000 had been received by the targeted schools[3]. However, distribution figures alone do not demonstrate policy success, because the benefits of technology can be assessed only when the devices are used consistently in instructional practice.

School-level implementation of digitalization policy depends on the capacity of policy actors to translate government directives into instructional activities. Teachers are responsible for selecting media, adapting content, managing classroom interaction, and determining assessment methods, whereas principals provide policy direction, organizational support, and facilities. Accordingly, implementation depends not only on the availability of devices but also on clear communication, adequate resources, implementers' commitment, and effective coordination within the school. Without these conditions, digitalization may remain limited to the provision of infrastructure and fail to produce meaningful changes in students' learning experiences.

These challenges are also evident in Kutai Barat Regency, a geographically extensive area characterized by unequal infrastructure across schools. Schools in urban and semi-urban areas generally have better access to devices and the internet than those in remote locations. Better access, however, does not necessarily lead to optimal use. At SDN 001 Barong Tongkok, laptops and Wi-Fi are available, but the intensity of digital media use varies among teachers. This variation reflects differences in teachers' competence, readiness, and initiative, while limited numbers of computers, projectors, and supporting devices require teachers to adapt their practices to the facilities available. These conditions reveal a gap between the objectives of digitalization policy and classroom practice at the school level.

Digital media use is associated with students' learning motivation because it can strengthen attention, interest, enthusiasm, willingness to ask questions, persistence, and participation. Media incorporating visual and interactive elements can support students' understanding and encourage more active engagement. These benefits, however, depend on appropriate instructional design and teacher guidance. The ARCS model explains that learning motivation can be developed through four components: attention, relevance, confidence, and satisfaction[4]. In this study, student motivation was examined through observed changes in interest, attention, enthusiasm, willingness to ask and answer questions, persistence in completing tasks, enjoyment of learning, and classroom participation.

Previous studies have shown that videos, interactive quizzes, and educational games can enhance elementary school students' attention and participation[5]. Other research emphasizes that the quality of digital learning is shaped by teacher competence,

digital literacy, and the availability of devices and internet connectivity [6]. Although relevant, these studies tend to examine media effectiveness, student motivation, teacher competence, and infrastructure readiness separately. Studies of motivation commonly focus on the use of a particular medium, whereas research on digitalization implementation often emphasizes facilities and teacher capacity without connecting them to students' learning experiences.

This gap indicates the need for research that examines policy implementation, implementer capacity, school support, contextual barriers, and student motivation within a unified analytical framework. The novelty of this study lies in integrating George C. Edwards III's policy implementation model, the stages of the Process Standards, and indicators of learning motivation. The dimensions of communication, resources, disposition, and bureaucratic structure are used to explain how policy is translated into instructional planning, implementation, and assessment. Based on this framework, the study aims to analyze the implementation of the policy on digital learning media use and identify the factors that support or hinder its contribution to students' learning motivation at SDN 001 Barong Tongkok, Kutai Barat Regency.

RESEARCH METHOD

This study employed a qualitative descriptive approach with a case study design to examine the implementation of the policy on digital learning media use at SDN 001 Barong Tongkok, Kutai Barat Regency. This design enabled an in-depth understanding of how policy was translated into instructional practice through the experiences, perspectives, and actions of school-level implementers[7], [8]. The policy implementation analysis drew on George C. Edwards III's model[9], which comprises communication, resources, implementer disposition, and bureaucratic structure. The study focused on the planning, implementation, and assessment of digitally supported instruction; its relationship with students' learning motivation; and the factors that facilitated or constrained policy implementation.

Thirteen informants were selected purposively based on their involvement in implementing digital learning. They included the principal, teachers, the school operator, and education staff. The principal provided information on policy direction, facility provision, professional guidance, and supervision. Teachers described the planning and use of digital media in instruction, while the school operator and education staff supplied supporting information on facilities, technical assistance, and implementation constraints. The data comprised primary data obtained directly from informants and classroom observations, as well as secondary data drawn from the school profile, infrastructure records, instructional documents, activity reports, and school policy documents.

Data were collected through semi-structured interviews, observations, questionnaires, and documentation. Interviews explored how policy was interpreted and translated into practice, how digital media were used, what organizational support was available, and what constraints the school encountered. Classroom observations

examined teachers' use of digital media, student engagement, facility conditions, and the instructional environment. A Likert-scale questionnaire provided supplementary descriptive data on the implementation of digital learning and students' learning motivation. Documentation was used to compare interview and observation findings with administrative records and evidence of school activities. Indicators of learning motivation included interest, attention, enthusiasm, willingness to ask and answer questions, persistence in completing tasks, enjoyment of learning, and student participation.

Qualitative data were analyzed using the interactive model developed by Miles, Huberman, and Saldaña, which involves data condensation, data display, and conclusion drawing and verification. Interview, observation, and documentation data were selected, categorized, and simplified according to the research focus, then presented in narratives, tables, and matrices. Conclusions were developed by identifying patterns and relationships across categories and were repeatedly verified throughout the analytical process. Questionnaire responses were summarized using frequencies and percentages to support qualitative interpretation. The trustworthiness of the findings was strengthened through data checking and triangulation across interviews, observations, and documentation.

RESULTS AND DISCUSSION

Results

Implementation of the Policy on Digital Learning Media Use

The implementation of the policy on digital learning media use was analyzed across the three stages of the Process Standards: instructional planning, instructional implementation, and learning process assessment. Students' learning motivation was examined as an outcome associated with digitally supported instruction.

Table 1. Informants' Responses to the Implementation of Digital Learning Media

Implementation aspect	Strongly agree	Agree	Disagree
Instructional planning	10 (76.92%)	3 (23.08%)	0
Instructional implementation	11 (84.62%)	2 (15.38%)	0
Learning process assessment	9 (69.23%)	3 (23.08%)	1 (7.69%)
Support for learning motivation	12 (92.31%)	1 (7.69%)	0

At the planning stage, 10 informants (76.92%) strongly agreed and 3 informants (23.08%) agreed that digital media use had been incorporated into instructional planning. Evidence of planning included the inclusion of digital media in teaching modules or lesson plans, the selection of media based on instructional objectives, alignment with subject matter and student characteristics, and preparation of facilities before instruction.

Planned media included instructional videos, digital images, presentations, electronic teaching materials, and internet-based learning resources. However, digital media were not always described in sufficient detail in instructional documents, and planning did not consistently include digitally supported assessment.

At the implementation stage, 11 informants (84.62%) strongly agreed and 2 informants (15.38%) agreed. Digital media were used during the opening, core, and closing phases of instruction. During opening activities, teachers used images, short videos, or prompting questions to attract students' attention. During core activities, videos, presentations, images, audio, and simple animations were used to clarify the material. During closing activities, digital media were used to present summaries, reflective questions, and simple quizzes. Their use remained concentrated in core activities, while integration during opening and closing activities was not yet consistent across teachers.

Classroom interaction also appeared more active when digital media were used. Students responded to images or videos, answered questions, expressed opinions, and followed teachers' directions. Digital media therefore served not only as tools for presenting content but also as a means of facilitating communication between teachers and students. Nevertheless, the media used were still dominated by videos, images, and simple presentations. Simulations, interactive quizzes, and learning applications had not yet become consistent features of instructional practice.

At the learning process assessment stage, 9 informants (69.23%) strongly agreed, 3 informants (23.08%) agreed, and 1 informant (7.69%) disagreed. Teachers assessed students' attention, activity, engagement, responses, and understanding through observation, oral questioning, assignments, and simple quizzes. They also provided feedback by correcting answers, offering further explanations, reinforcing key points, and encouraging students.

Digital assessment was not yet fully structured or documented. Interactive quiz applications, digital worksheets, digital rubrics, and electronic portfolios were not used consistently. Assessment results were also not always recorded or systematically used to improve subsequent instruction. Consequently, learning process assessment received a lower proportion of strongly agree responses than instructional planning, implementation, and support for learning motivation.

Digital media use was perceived to be associated with students' learning motivation. Twelve informants (92.31%) strongly agreed and 1 informant (7.69%) agreed. Observed changes included greater interest in participating in lessons, increased attention to the material, enthusiasm, willingness to ask and answer questions, persistence in completing tasks, enjoyment of learning, and participation in classroom activities. Images, sound, color, video, and animation appeared to make students more interested and less likely to become bored. These findings, however, represent informants' perceptions and observational evidence of student behavior rather than causal evidence of changes in motivation.

Supporting and Inhibiting Factors in Policy Implementation

Factors supporting implementation arose from both the internal and external school environments. They included principal support, teachers' ability to use digital media, the availability of facilities, internet access, assistance from the school operator, support from parents and the school committee, teachers' willingness to innovate, and positive student responses.

In terms of communication, the principal provided direction, encouragement, and supervision to help teachers use digital media in accordance with instructional objectives. Teachers and the school operator also coordinated the preparation of devices and the resolution of technical problems. Communication with parents and the school committee supported the use of technology when it was clearly directed toward instructional purposes.

Regarding resources, most teachers possessed basic skills in operating laptops, projectors, presentation software, videos, and electronic teaching materials. The school had also provided several devices and internet access. The school operator offered technical support, while education staff assisted with scheduling, storage, and device maintenance. In terms of disposition, the principal and teachers demonstrated positive attitudes toward technology use. Teachers were willing to search for, select, and adapt digital materials, and students' positive responses encouraged them to use a wider variety of media. With respect to bureaucratic structure, responsibilities were distributed among the principal as policy director and supervisor, teachers as instructional implementers, the operator as technical support, and education staff as facility managers.

Policy implementation continued to encounter several barriers, including an insufficient number of devices, unstable internet connectivity, uneven levels of teacher digital competence, limited time for media preparation, low digital literacy among some students, budget constraints, and inconsistent use of digital media across classrooms.

Limited numbers of laptops, projectors, and speakers required devices to be shared. Teachers had to adjust instruction to facility-use schedules and sometimes move equipment from one classroom to another. Unstable internet connectivity also restricted the use of videos, applications, and online resources, prompting teachers to rely more frequently on materials that could be used offline.

Teachers' capacity to use technology also varied. Some were able to create and use media independently, whereas others still required assistance from the school operator. Teaching and administrative workloads further limited the time available to search for, develop, and adapt digital materials. Students' ability to follow digital instructions was similarly uneven, requiring teachers to provide demonstrations, repetition, and additional guidance.

Further barriers concerned consistency of implementation and facility management. Digital media had not become a routine component of instruction in all classrooms, while device maintenance and repair depended on available funding. Dependence on the school operator also meant that technical assistance could not always be provided simultaneously to all teachers.

Discussion

Implementation of the Policy on Digital Learning Media Use

The findings indicate that the policy on digital learning media use had been translated into instructional planning, implementation, and assessment. The degree of implementation, however, varied across these stages. Digital media were more strongly integrated into content delivery and classroom interaction than into learning process assessment. This pattern suggests that technology integration at the school had progressed beyond device provision toward pedagogical practice, although it had not yet developed into a fully integrated digital learning system.

At the planning stage, teachers had begun to align digital media with instructional objectives, content, and student characteristics. Such planning is essential because technology does not produce pedagogical benefits merely by being available in a school. A case study conducted by Razak et al.[10] in elementary schools showed that successful technology integration emerges from the relationship among policy and school activities, organizational support, and teachers' classroom actions. This evidence supports the present finding that principal support and teacher readiness connect policy direction with instructional practice.

Although digital media had been included in planning, they were not always positioned as a core element of instructional strategy. Their use continued to depend on the nature of the content, teachers' readiness, and device availability. This finding is consistent with Backfisch et al. [11], who found that the frequency and quality of technology integration vary according to teachers' judgments of its benefits and the contextual conditions they encounter. Planning should therefore go beyond naming a particular medium and specify its instructional function, the activities students will undertake, and the form of evaluation to be used.

Instructional implementation received the most positive responses after support for learning motivation. Videos, images, audio, and presentations enabled teachers to present content more concretely and create opportunities for interaction through questions and discussion. These findings show that digital media functioned not merely as substitutes for blackboards or textbooks but as tools that strengthened the connection between content presentation and student activity. In a study of elementary schools in Malaysia, Razak et al.[10] similarly showed that successful technology integration occurs when teachers can address practical constraints and connect technology with authentic instructional activities.

Nevertheless, media use remained dominated by relatively simple formats and was concentrated in core instructional activities. This pattern indicates that integration was not consistent across all stages of instruction. Technology had become a presentation tool but was not yet used consistently for exploration, collaboration, interactive practice, reflection, and follow-up activities. Such variation is understandable because teachers' motivation and technology-use practices differ according to instructional needs, perceived benefits, and classroom conditions [11].

Learning process assessment was the area most in need of improvement. Teachers observed student engagement and administered simple quizzes, but technology was not used systematically for documentation, feedback, or instructional follow-up. This finding is relevant to the study by Bentri et al. [12] involving elementary education teachers in Indonesia, which showed that digital analysis and evaluation skills are essential components of digital pedagogical competence and require systematic training. Strengthening digital learning at SDN 001 Barong Tongkok should therefore extend beyond operational skills to include the capacity to design simple, valid digital assessments appropriate to students' developmental levels.

Informants' responses concerning motivation suggest that digital media were associated with students' attention, interest, enthusiasm, persistence, and participation. This finding is consistent with Vidergor [13], who reported that game-based digital learning experiences among elementary school students were associated with stronger motivation and collaboration. A case study by Asrifah et al. [14] similarly reported that interactive media use was related to engagement, enthusiasm, understanding of subject matter, and a more enjoyable classroom environment.

The present findings, however, cannot establish that digital media were the sole cause of increased motivation. The case study design did not include pre- and post-measures, a comparison group, or a validated instrument for assessing student motivation. The observed behavioral changes may also have been related to teaching strategies, teacher-student interaction, content characteristics, and the novelty of the media. It is therefore more appropriate to conclude that digital media supported, were associated with, or were perceived to contribute to students' learning motivation.

Supporting and Inhibiting Factors in Policy Implementation

The supporting and inhibiting factors indicate that digital media implementation is an organizational process rather than simply an individual teacher's decision. According to the Edwards III model, communication, resources, disposition, and bureaucratic structure are interrelated. Clear communication from the principal is insufficient when teachers lack the necessary skills, devices, time, and technical support. Conversely, the availability of facilities does not guarantee consistent use when teachers lack confidence or commitment.

Principal support was a critical factor because it provided legitimacy and direction for technology use. Guidance, supervision, and encouragement helped establish digital media as part of the school's agenda. This finding is consistent with Wang et al. (2022), whose study of rural schools showed that technology integration is jointly influenced by policy clarity, infrastructure, teacher learning opportunities, and technical support. The principal's role therefore extends beyond providing devices to establishing mechanisms for professional learning and work coordination.

Teacher competence functioned as both a facilitating and constraining factor. Teachers with stronger digital skills used media more routinely, whereas those with lower confidence depended more heavily on the operator or on simple media. Windasari et al. [15] found that teachers' digital competence is influenced by knowledge, skills,

attitudes, and a supportive environment. Bentri et al. [12] also showed that digital analysis and evaluation skills contribute to elementary teachers' mastery of digital pedagogy. These findings reinforce the need for competence development that moves beyond application use to integrate technology, pedagogy, content analysis, and assessment.

Training is one strategy for reducing disparities in competence among teachers. A quasi-experimental study by Munawaroh et al.[16] involving elementary school teachers showed that a six-month training program improved conceptual, procedural, and attitudinal dimensions of digital competence. Based on this evidence, school-level training should be continuous and responsive to practical needs, including the development of interactive presentations and quizzes, the use of offline resources, and the design of digital assessments.

Limitations in devices and internet connectivity demonstrate that infrastructure remains an essential prerequisite. Shared devices reduced teachers' flexibility, while unstable internet access restricted the use of online learning resources. These findings resemble those of Wang et al[17], who categorized barriers to ICT integration in rural schools as policy, technical, and human-resource challenges. This similarity indicates that technology-related problems in non-urban schools cannot be resolved solely through device distribution; they also require technical support, offline-accessible content, and maintenance mechanisms.

Implementers' disposition or attitudes were generally positive but had not yet resulted in consistent use. Teachers who perceived digital media as beneficial were more willing to use them, whereas constraints related to time, skills, and facilities reduced implementation consistency. Backfisch et al. [11] showed that perceived usefulness is an important factor explaining variation in teachers' technology integration practices. Positive attitudes therefore cannot be strengthened through directives alone; they must be supported by successful experiences, examples of effective practice, and opportunities for teachers to share materials and strategies.

The school's bureaucratic structure supported implementation through a division of responsibilities, but substantial dependence on the operator and facility-loan schedules remained. These conditions could delay instructional preparation and limit access to devices when needed. The school should establish straightforward procedures for device use, storage, maintenance, and technical troubleshooting. Developing a shared media repository and assigning digital mentor teachers could also reduce the operator's workload and strengthen collaboration among teachers.

Overall, the findings addressing the two research questions indicate that the policy on digital learning media use had been implemented and was positively received, but its application was not yet fully integrated or consistent. Its sustainability depends on the interaction among school leadership, teacher competence, facilities, technical support, organizational arrangements, and student responses. The contribution of this study lies in demonstrating that students' learning motivation is associated not only with the

characteristics of the media but also with the quality of policy implementation at the school level.

CONCLUSION

Fundamental Finding : The policy on digital learning media use at SDN 001 Barong Tongkok had been implemented in instructional planning, implementation, and assessment, but it had not yet become a consistent practice across all classrooms. Its strongest application was in content presentation and the enhancement of classroom interaction, while its use in learning process assessment remained limited. Implementation was supported by principal leadership, teachers' competence and willingness to innovate, assistance from the school operator, facility availability, support from parents and the school committee, and positive student responses. However, it continued to be constrained by insufficient devices, unstable internet connectivity, differences in teachers' digital competence, limited preparation time, students' digital literacy, and the school budget. **Implication :** These findings indicate that successful digital learning depends on more than the provision of technology. It requires sustained school policies that support teacher training, stronger digital assessment practices, effective arrangements for device use and maintenance, and improved technical and infrastructural support. **Limitation :** This study was limited to one school and a relatively small number of informants. Students' learning motivation was identified primarily through informants' perceptions and observations, without a validated motivation instrument, a comparison group, or pre- and post-measurement. The findings therefore cannot be generalized broadly or used to establish causal relationships. **Future Research :** Future studies should involve multiple schools representing different regional characteristics, apply mixed-methods or longitudinal quantitative designs, use validated motivation instruments, and compare the effectiveness of different forms of digital media. Further research should also examine how teacher competence, principal leadership, infrastructure, and organizational support influence students' motivation and learning outcomes.

REFERENCES

- [1] J. M. Ibn Manzur, *Lisan al-'Arab*, vol. 2. Beirut, Lebanon: Dar Lisan al-'Arab.
- [2] O. O. S. Al-Ashqar, *Recent Jurisprudential Developments in Matters of Marriage and Divorce*, 1st ed. Amman, Jordan: Dar al-Nafais, 2000.
- [3] O. O. S. Al-Ashqar, *The Rulings on Marriage in the Light of the Qur'an and Sunnah*, 1st ed. Amman, Jordan: Dar al-Nafais for Publishing and Distribution, 2007.
- [4] M. Al-Sartawi, *Commentary on the Personal Status Law: The Marriage Contract*, vol. 1. Dar al-Fikr for Printing, Publishing and Distribution, 2006.
- [5] Y. Al-Qaradawi, *Misyar Marriage*. Makkah, Saudi Arabia: Islamic Fiqh Council, 2006.
- [6] A. A. A. B. Al-Kasani, *Bada'i' al-Sana'i' fi Tartib al-Shara'i'*, vol. 2, 2nd ed., 2002.
- [7] A. Al-Kubaisi, *Al-Wajiz fi Sharh Qanun al-Ahwal al-Shakhsi'a wa Ta'dilihi (A Concise Explanation of the Personal Status Law and Its Amendments)*, 2nd ed. Baghdad, Iraq: Al-Maktaba al-Qanuniya, 2006.
- [8] A. A. M. Al-Namlah, *Al-Muhadhdhab fi 'Ilm Usul al-Fiqh al-Muqarran (The Refined Treatise on the*

- Principles of Comparative Islamic Jurisprudence*), vol. 5, 1st ed. Riyadh, Saudi Arabia: Maktabat al-Rashad, 2009.
- [9] A. Al-Tamimi, "Misyar Marriage," *Al-Asra' Magazine*, no. 46.
- [10] Y. Al-Qaradawi, "On Misyar Marriage," *Al-Mujtama' Magazine*, no. 1301, 2008.
- [11] I. Qudāmah, *Al-Mughnī*, vol. 9. Beirut, Lebanon: Dār al-Kutub al-'Ilmiyyah, 1994.
- [12] Y. ibn Sharaf al-Nawawī, *Al-Majmū' Sharḥ al-Muhadhdhab*, vol. 17. Jeddah, Saudi Arabia: Maktabat al-Irshād, n.d.
- [13] I. Rushd, *Bidāyat al-Mujtahid wa Nihāyat al-Muqtaṣid*, vol. 2. Beirut, Lebanon: Dār al-Kutub al-'Ilmiyyah, 2004.
- [14] I. Rushd, *The Distinguished Jurist's Primer: Bidāyat al-Mujtahid*, vol. 2, I. A. K. Nyazee, Trans. Reading, U.K.: Garnet Publishing Ltd., 1996.
- [15] M. Barakat, "The Misyar Storm," *Al-Watan Al-Arabi Magazine*, no. 1111, 2008.

Peronika

Merdeka University, Indonesia

Agus Sholahuddin

Merdeka University, Indonesia

Wahyu Wiyani

Merdeka University, Indonesia
