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# Utilization of the S.Id Microsite Platform in Improving the Quality of Education at State Elementary School

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**ABSTRACT**

State Elementary School has adopted the S.Id Microsite Platform as part of efforts to improve education quality through digital-based learning. This platform serves to accelerate the dissemination of information, expand access to learning materials, and enhance communication among school stakeholders. This study employed a qualitative descriptive method with principals, teachers, and students as research subjects. Data were collected through interviews, observation, and documentation, and analyzed using data reduction, data presentation, and conclusion drawing. The findings show that the utilization of the S.Id Microsite follows structured stages, starting with preparation and training, and continuing with daily use in teaching and learning. Its implementation is supported by strong school commitment, adequate infrastructure, and the platform's ease of access and communication features. However, challenges remain, including unstable internet connectivity, limited digital literacy among some teachers and students, as well as device shortages and time management constraints. To address these obstacles, schools need to improve technology access, strengthen digital literacy, and manage the platform more effectively. Overall, the S.Id Microsite has contributed positively to learning innovation and provides a promising step toward the digitalization of education at the elementary school level.

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## INTRODUCTION

In the current era of globalization, the development of information technology has become one of the most influential factors shaping modern society. The digital revolution has significantly transformed various aspects of human life, including communication, economy, health, and education. Particularly in education, the ability to access, deliver, and process information

through technology has created both opportunities and challenges. On the one hand, digital tools provide faster access to knowledge, expand learning resources, and improve efficiency in teaching and learning processes. On the other hand, the rapid advancement of technology demands continuous adaptation from educational institutions to maintain relevance and quality. Education is a strategic sector because it determines the quality of human resources, which in turn influences national competitiveness. Therefore, understanding and optimizing the role of digital technology in education is not only important for teachers and students but also for society at large. Research in this area is essential to provide solutions for improving educational quality in a sustainable way.

Despite the many advantages offered by technology, the education sector faces significant challenges in integrating digital tools effectively. One major problem is the unequal access to information technology across schools, especially in rural and underdeveloped areas. Some institutions are able to adapt quickly to digital learning systems, while others struggle due to limited infrastructure, lack of digital literacy, and inadequate teacher training. As a result, the quality of education remains inconsistent, creating a gap between schools with advanced technological integration and those still dependent on conventional methods. This condition not only affects the learning experiences of students but also has long-term implications for their competencies and competitiveness in the job market. If not addressed, the disparity in educational quality may widen social inequality. Therefore, identifying practical and accessible solutions to improve the integration of technology in schools is urgently needed. This study is positioned as a response to such problems by exploring the utilization of digital platforms in supporting quality education.

Observations in the field show that many schools in Indonesia have begun to adopt technology as part of their effort to improve learning quality. At State Elementary School 199/VII Mekarsari II, Pelawan District, Sarolangun Regency, teachers and school leaders have shown strong commitment to utilizing IT-based tools in the teaching process. The school has already introduced innovations by using digital platforms to facilitate learning and communication. Teachers regularly integrate technology into lessons, share materials online, and attempt to involve students in interactive learning. However, despite these efforts, challenges still exist in terms of optimizing technology use to maximize its impact on educational input, process, output, and outcome. For example, while teachers use digital media, the management and accessibility of resources are sometimes limited. This indicates that although progress has been made, further development is required to ensure that technology adoption leads to measurable improvements in educational quality. Thus, the field phenomenon demonstrates

both potential and ongoing challenges.

Previous studies have highlighted the positive impact of technology on improving education quality. Yusuf (2018) emphasized that information technology is one of the key pillars in supporting educational transformation. Research by Ulansari, Hayat, and Anggraeni (2023) showed that integrating digital tools into classrooms increases student engagement and facilitates easier access to learning resources. Similarly, Azizah and Subiyantoro (2023) found that digital media such as educational videos and applications enrich student experiences and enhance understanding. Nugroho (2015) also demonstrated that technology provides more effective ways to monitor student progress and deliver timely feedback. These studies collectively affirm the necessity of adopting technology in the educational system. However, the findings primarily focused on broad correlations between technology use and educational outcomes, leaving space for more specific inquiries. While the benefits of digital learning tools are clear, the effectiveness of particular platforms and their adaptability in different school contexts has not been sufficiently examined. This study seeks to fill that gap.

Although prior research has shown positive relationships between technology and education, there remain several limitations that require further attention. First, most studies highlight general benefits but provide little explanation about practical tools that can be implemented effectively in schools with limited resources. Second, many findings are theoretical or based on large-scale data, but fewer investigations focus on case studies of specific schools where technology is integrated at the grassroots level. Moreover, there is limited exploration of how technology platforms can address all aspects of educational quality—input, process, output, and outcome—simultaneously. This creates a research gap where the practical application of specific digital platforms in real learning environments remains underexplored. Addressing this gap is crucial because without concrete examples and localized evidence, it becomes difficult for educators and policymakers to replicate successful models. Therefore, this research positions itself to examine the utilization of the S.Id microsite platform in a specific elementary school context, providing both practical and academic contributions.

The novelty of this study lies in analyzing the use of the S.Id microsite platform as a practical and innovative solution for improving educational quality. A microsite is an internet-based tool that enables the creation of focused and easy-to-manage web pages. Unlike broader digital learning management systems, microsites provide a simpler, more accessible, and cost-effective approach for schools to share resources and manage communication. The S.Id platform allows teachers to upload learning materials, assignments, videos, and

school announcements in an organized and easily accessible format. While previous research has emphasized the general benefits of technology, few have examined microsites as a specific innovation in education. By focusing on a practical tool that can be directly implemented by teachers and schools, this study provides a fresh perspective on digital integration. Furthermore, it demonstrates how microsites can enhance teacher competence, student engagement, and overall school management. This makes the research highly relevant for addressing current educational challenges.

Based on the identified issues and research gap, the central research problem of this study is: How can the utilization of the S.Id microsite platform contribute to improving the quality of education at State Elementary School 199/VII Mekarsari II? The argument is that technology, when applied through a user-friendly and accessible platform, can enhance educational quality across multiple dimensions. Specifically, the microsite can strengthen input quality by increasing the availability of learning resources, improve process quality by supporting more interactive and flexible learning, raise output quality through efficient management of assessments, and contribute to outcome quality by preparing students with long-term competencies. The platform also encourages teacher professional development by motivating them to learn new digital skills and engage with technology-based training. Thus, this study argues that the S.Id microsite is not just an optional digital tool but an essential medium for supporting the holistic improvement of education in the digital era.

The contribution of this study is twofold: theoretical and practical. Theoretically, it expands the body of knowledge on educational technology by providing insights into the specific use of microsites, which have not been widely discussed in previous studies. By analyzing the S.Id platform in a real school context, this research contributes empirical evidence that strengthens the discourse on the role of technology in enhancing educational quality. Practically, the study provides a replicable model for schools, especially those in rural or under-resourced areas, to adopt simple yet effective digital solutions. The findings can guide teachers, school administrators, and policymakers in selecting and implementing technology that is both sustainable and impactful. Ultimately, this research underscores that integrating microsite platforms in schools is not merely about keeping up with digital trends but about strategically improving educational input, process, output, and outcome.

## METHOD

This study employs a qualitative research design, chosen because it allows for an in-depth exploration of phenomena related to the utilization of digital platforms in education. Qualitative research, as Syahrizal and Jailani (2023)

explain, is intended to describe and analyze social phenomena, events, activities, attitudes, perceptions, and experiences of individuals or groups. Rather than emphasizing numerical measurement, this approach focuses on meaning, interpretation, and the complexity of human interaction. Similarly, Moleong (2014) defines qualitative methodology as a research procedure that produces descriptive data in the form of written or spoken words from participants, as well as observable behavior. Through this framework, the study seeks to capture the lived experiences of teachers, students, and school leaders in adapting to technology, while also uncovering underlying perspectives that might not be visible through quantitative measures.

The research was carried out at State Elementary School 199/VII Mekarsari II, located along Provinsi Jambi Road. The school was chosen because it has actively attempted to integrate information technology into its teaching and learning processes, making it a relevant and rich site for data collection. The study took place during the second semester of the 2024/2025 academic year, a period that provided sufficient opportunity to observe ongoing learning activities and the consistent use of the S.Id microsite platform. By situating the study in a natural educational setting, the research was able to capture authentic practices and interactions as they unfolded in real time. Participants in this study included the principal, several teachers, and students from SDN 199/VII Mekarsari II. These informants were selected purposively to ensure that they represented individuals who were directly involved in, or affected by, the integration of the S.Id microsite in school activities. The principal provided insights into policy decisions and institutional support, teachers offered perspectives on pedagogical practices and challenges, while students shared their experiences as primary users of the platform. This combination of informants enabled the researcher to construct a holistic understanding of how the microsite influenced different dimensions of educational quality.

Data collection employed multiple techniques to ensure richness and depth of information. Interviews were conducted with principals, teachers, and students to explore their perceptions, attitudes, and experiences in using the microsite. Observations were carried out during classroom activities and school programs to examine how the platform was applied in practice and how it affected teaching and learning interactions. Documentation, including lesson plans, student assignments, and digital learning materials uploaded to the microsite, was also reviewed to provide additional evidence and support triangulation. These complementary methods allowed the researcher to not only capture participants' voices but also verify the alignment between what was said and what was practiced.

The process of data analysis followed the interactive model suggested by Sugiyono (2019), which involves three interrelated stages: data reduction, data display, and conclusion drawing. Data reduction was carried out by selecting, simplifying, and organizing information obtained from interviews, observations, and documents to focus on aspects relevant to the research problem. Data display was conducted through narrative descriptions, thematic categorization, and conceptual mapping to facilitate interpretation. Finally, conclusions were drawn by identifying patterns, relationships, and meanings that emerged from the data. This cyclical process ensured that analysis was ongoing and iterative, rather than linear, allowing for refinement of insights as new data emerged.

To establish the credibility and trustworthiness of the findings, several strategies were employed in accordance with qualitative research standards. Prolonged engagement and persistent observation were undertaken to build trust with participants and to ensure an in-depth understanding of the school context. Triangulation was applied by cross-checking data from different sources and methods to strengthen validity. Peer checking and referential adequacy were used to ensure that interpretations were consistent with academic standards and supported by available evidence. Negative case analysis was conducted to account for data that contradicted emerging patterns, while member checking was used to validate findings by presenting them back to participants for confirmation. These strategies ensured that the results of the study were both credible and dependable.

## RESULT AND DISCUSSION

### Utilization of the S.Id Microsite Platform in Improving Education Quality

The implementation of the S.Id Microsite Platform at State Elementary School 199/VII Mekarsari II has been systematically designed to ensure that it is effectively integrated into the learning process. The school adopted a three-phase approach consisting of preparation, training, and integration. The preparation stage involved identifying needs and planning content, followed by training sessions for teachers and students, which were facilitated by the local Education Office. These sessions equipped teachers with the knowledge to design and manage class-specific microsites. Once training was completed, the platform was gradually incorporated into daily teaching and learning activities.

Teachers reported that the microsite has been particularly useful in preparing and delivering teaching materials. Lesson summaries, instructional videos, and practice questions could be uploaded and accessed by students at school or at home, allowing for more flexible learning. Students no longer felt bound by rigid classroom schedules; instead, they were able to review materials at their own pace. The platform also enabled smoother communication between

teachers and parents, as links to materials and announcements could be shared instantly through familiar channels such as WhatsApp. This not only improved transparency but also fostered stronger collaboration among the school community.

Supporting infrastructure played an essential role in ensuring the platform's success. The school provided access to Android smartphones, laptops, and projectors, while also working to maintain a stable internet connection through school Wi-Fi. Despite occasional disruptions due to unstable signals, teachers adapted by displaying digital content in class or making materials available for offline access. These strategies helped reduce barriers and encouraged more interactive and modern learning practices. Ultimately, the implementation of the S.Id Microsite demonstrated that digital platforms could significantly enrich classroom instruction, strengthen student independence, and contribute to the overall quality of education.

**Supporting and Inhibiting Factors in the Utilization of the S.Id Microsite**

The successful use of the microsite at SDN 199/VII was supported by several key factors. One of the most important was the simplicity of the platform itself. Teachers found the interface user-friendly and were able to upload learning materials quickly and systematically. The availability of structured resources in one accessible space made the teaching process more organized and efficient. In addition, the presence of stable internet within the school allowed students and parents to access materials without major interruptions, which in turn supported continuous interaction between teachers and students, both inside and outside the classroom.

Leadership support was also crucial. The school principal encouraged the adoption of the microsite by providing technical assistance, organizing training sessions, and motivating teachers to integrate the platform confidently into their pedagogy. This created a collaborative and innovation-friendly environment where teachers shared practices, developed content collectively, and supported one another in improving digital literacy. Such collaboration increased the variety and quality of materials available to students, making lessons more engaging and tailored to their needs.

The microsite further enhanced student motivation by offering flexible access to diverse forms of learning content, including videos, interactive exercises, and worksheets. Students became more independent in managing assignments and developed new habits of accessing digital information. Parents also began to take a more active role in monitoring their children's learning progress, as they could easily view assignments and announcements posted on

the platform. This strengthened the home-school connection and helped build a supportive learning ecosystem.

Nevertheless, several inhibiting factors were identified. The most pressing challenge was internet instability, particularly during periods of bad weather or power outages, which disrupted access to materials. Limited personal devices also created inequality among students, as many relied solely on school-provided facilities and could not continue their learning independently at home. Some teachers, especially senior ones, expressed difficulties adapting to digital platforms, citing a lack of confidence and limited training in maximizing the microsite's features. Time constraints within an already crowded curriculum also limited opportunities to fully integrate the platform into daily lessons. These challenges highlight the complexity of digital adoption and the need for targeted solutions.

**Solutions to Barriers in Utilizing the S.Id Microsite**

Recognizing the barriers, the school community has sought creative and inclusive solutions to ensure that the microsite remains effective. One of the most practical approaches has been the effort to provide additional digital devices, such as tablets and computers, which can be borrowed by students who do not own personal devices. Teachers noted that this measure reduced inequality and gave all students the chance to benefit from digital learning. To complement this, the school introduced a rotation schedule for device usage, ensuring that every student had equal access during school hours. This was particularly beneficial for children living in areas with poor internet connectivity, as they could rely on the school's stable Wi-Fi while still engaging with online resources.

Teachers also addressed time limitations by gradually integrating microsite features into lesson planning, balancing digital activities with traditional classroom practices. Over time, this hybrid approach has allowed students to adjust to the platform without overwhelming teachers' workloads. For students and teachers less familiar with digital tools, additional training sessions and peer mentoring have been introduced, fostering confidence and competence in using the microsite effectively.

Overall, these solutions reflect the school's commitment to inclusivity and equity in digital education. By providing additional devices, scheduling access fairly, and offering continuous training, SDN 199/VII Mekarsari II has worked to overcome limitations while maintaining the momentum of its digital innovation. These efforts have contributed to making the S.Id Microsite not just a temporary innovation but a sustainable and integral part of the school's educational strategy. In doing so, the school has demonstrated that even with challenges,

technology can be successfully adapted to improve the quality of education in elementary school contexts.

**Discussion**

The integration of Information and Communication Technology (ICT) at State Elementary School 199/VII Mekarsari II reflects an early-stage progression in line with the "Technology Literacy" framework developed by UNESCO (2018). At this level, ICT use typically emphasizes basic digital literacy skills, where teachers and students engage primarily with presentation software or simple content-sharing tools. This corresponds with observations that most teachers in the school are limited to uploading lesson summaries or projecting slides during class, while deeper levels of ICT integration—such as collaborative online projects, gamified learning, and data-driven instruction—remain underdeveloped. The restricted adoption suggests that the school is still transitioning from viewing ICT as a technical supplement toward recognizing it as a transformative pedagogical tool.

Despite these constraints, signs of progress are evident, particularly among younger teachers who have begun experimenting with design tools like Canva to enhance visual appeal in their teaching materials. Their willingness to adapt resonates with Ertmer and Ottenbreit-Leftwich's (2010) assertion that teachers' beliefs about the value of technology strongly influence the depth of ICT integration. This suggests that personal conviction and motivation can partially overcome systemic barriers, creating a foundation for gradual innovation. However, platforms with proven pedagogical benefits, such as Kahoot and Quizizz, remain underutilized. Previous studies, such as Wang (2015), have demonstrated that gamification not only increases student engagement but also strengthens knowledge retention. The underuse of such tools highlights a missed opportunity for enhancing active learning and points to the need for structured training programs that introduce teachers to diverse educational technologies.

The absence of systematic competence assessment further complicates ICT integration. Currently, evaluation is conducted informally, relying primarily on classroom observation or self-reporting. This practice falls short of internationally recognized frameworks such as the European Commission's DigCompEdu, which emphasize comprehensive and standardized evaluation across multiple dimensions, including professional engagement, digital content creation, teaching, assessment, and learner empowerment (Suzer & Koc, 2024). Without clear benchmarks or structured reflection, teachers struggle to identify their strengths and weaknesses in digital pedagogy. Moreover, the lack of digital portfolios means that evidence of teachers' progress, creativity, and professional

growth remains undocumented. Portfolios not only serve as archives of teaching practice but also function as reflective tools for sustained improvement. Their absence reflects a gap in long-term planning and professional development strategies within the school.

From an Islamic perspective, the pursuit of ICT development in education aligns harmoniously with spiritual values. The Qur'anic injunction to seek knowledge, as emphasized in Surah Al-'Alaq (1–5), underscores the divine obligation to employ available means for acquiring and disseminating knowledge. Modern ICT tools can be conceptualized as contemporary equivalents of "the pen" through which Allah introduced humanity to literacy and learning. Consequently, the use of digital technology in teaching is not merely a professional expectation but also a form of fulfilling spiritual responsibility. Teachers, therefore, must perceive ICT integration as an act of ibadah (worship) when it serves the noble purpose of transmitting knowledge and guiding students. This religious perspective has the potential to enhance teachers' intrinsic motivation, embedding technology adoption not only in pedagogical necessity but also in spiritual duty.

The findings also emphasize the interplay between enabling and inhibiting factors in shaping ICT adoption. On the enabling side, adequate infrastructure, teacher motivation, and peer collaboration were identified as pivotal. These factors create a supportive culture where teachers feel encouraged to experiment with digital tools and share practices with colleagues. This resonates with Hennessy et al. (2021), who argue that collaborative learning among teachers accelerates digital competence development by fostering a sense of community and shared responsibility. At the same time, the school principal's leadership emerges as a decisive factor. Through structured training initiatives, resource optimization, and teacher recognition, the principal has provided a clear vision and encouragement that reflect elements of transformational leadership. Fullan (2016) highlights that such leadership practices—particularly fostering collaboration, setting clear goals, and celebrating success—are vital for sustaining educational innovation.

Nevertheless, persistent challenges cannot be overlooked. Limited funding restricts the acquisition of personal devices for students, while unstable internet connections frequently disrupt digital activities, particularly during inclement weather or power outages. Teachers also face high workloads, balancing traditional responsibilities with the additional demands of integrating technology. These barriers underline the need for adaptive strategies, including partnerships with local government and private stakeholders to improve infrastructure, as well as time-management support that allows teachers to integrate ICT meaningfully without being overburdened.

Taken together, the discussion reveals that the school's ICT integration is situated at a critical juncture: it has moved beyond initial awareness and experimentation but has yet to achieve deep and transformative adoption. To progress toward UNESCO's higher stages of ICT integration—namely "Knowledge Deepening" and "Knowledge Creation"—systematic interventions are required. These include professional development that builds teacher confidence, standardized competence assessment frameworks, investment in infrastructure, and policies that institutionalize ICT as a core component of pedagogy. When coupled with religious values that frame ICT adoption as both a professional obligation and spiritual act, such efforts hold the potential to create a sustainable culture of digital innovation within the school.

## CONCLUSION

The findings of this study demonstrate that teachers' ICT competence at SMPN Satu Atap 12 Sarolangun remains at a basic to intermediate level. Most educators are still reliant on conventional tools such as PowerPoint and projectors, while the integration of more advanced digital platforms like Google Classroom, Kahoot, and Canva is limited to a smaller group of younger and more digitally inclined teachers. This indicates that while the foundation for ICT adoption has been established, its application is still partial and fragmented, lacking the consistency required to fully transform teaching and learning practices. The progress observed suggests that the school is in a transitional phase where awareness of ICT benefits exists but deeper integration has yet to be realized.

The study further highlights that both supporting and inhibiting factors shape the trajectory of ICT integration. On the supportive side, the school benefits from adequate infrastructure, regular training programs, strong leadership, collaborative peer networks, and partnerships with the Education Department. These elements create an environment conducive to growth and experimentation, encouraging teachers to explore technology as part of their pedagogy. However, challenges remain significant, including limited funding for digital resources, unstable internet connectivity, gaps in teacher confidence and skills, and heavy workloads that constrain time for innovation. These inhibiting factors reveal the complexity of advancing ICT in schools, especially in contexts where resources are constrained and professional development opportunities are unevenly distributed.

The role of the principal emerges as particularly critical in navigating this balance between opportunities and obstacles. By providing internal and external training, maximizing the use of existing ICT tools, and encouraging collaboration through teacher forums such as MGMP, the principal has created a culture of

continuous professional learning. Recognition and appreciation for active and innovative teachers further reinforce motivation and strengthen the sense of collective responsibility for digital transformation. These leadership strategies reflect a contextually responsive approach that aligns with both the school's needs and broader educational goals, demonstrating the importance of visionary and adaptive leadership in fostering change.

In conclusion, the integration of ICT at SMPN Satu Atap 12 Sarolangun is progressing gradually, shaped by a dynamic interplay of competence, resources, leadership, and collaboration. While current practices reflect early stages of adoption, the presence of supportive leadership and motivated teachers offers a strong foundation for continued advancement. The findings underscore that ICT development in schools is not solely a matter of technological access but also of cultural adaptation, professional growth, and strategic leadership. As the school continues to address its challenges, the potential exists to move toward a more innovative and sustainable digital learning culture that prepares both teachers and students to thrive in the demands of the 21st century.

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