



Strategic Planning in a Google Reference School: Digital Transformation and Artificial Intelligence in Primary Education

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Abstract

Digital transformation and the emergence of artificial intelligence are increasingly shaping policy directions and school practices in primary education. However, discussion has often remained centered on classroom use rather than on how schools translate these developments into strategic planning. This study employed a qualitative single-case study design to examine how SD Negeri 001 Muara Badak, Kutai Kartanegara, formulated its strategic planning in response to digital transformation and the growing presence of artificial intelligence. Data were collected through semi-structured interviews with seven participants, including the principal, curriculum coordinator, teachers, and school operator, and were complemented by document analysis. The data were analyzed thematically. The findings showed that the school's strategic direction was shaped by efforts to strengthen digital culture, develop teacher capacity, and integrate technology into school programs. At the same time, artificial intelligence had not yet been explicitly incorporated into the school's strategic documents and was still understood unevenly across participants. These findings highlight the need for schools to move beyond general digital development toward a more explicit and coherent strategic positioning of artificial intelligence within institutional planning, contributing to primary school strategic planning by clarifying how AI can be formally integrated into school direction, professional development, and policy alignment.

Kata Kunci	Abstrak
Perencanaan Strategik; Transformasi Digital; Kecerdasan Buatan; Sekolah Dasar; Studi Kasus.	<i>Transformasi digital dan kemunculan kecerdasan buatan semakin memengaruhi arah kebijakan dan praktik sekolah dasar. Namun, pembahasan masih sering berpusat pada penggunaan teknologi di kelas dan belum banyak menjangkau bagaimana sekolah menerjemahkan perkembangan tersebut ke dalam perencanaan strategik. Penelitian ini menggunakan desain studi kasus tunggal dengan pendekatan kualitatif untuk mengkaji bagaimana SD Negeri 001 Muara Badak, Kabupaten Kutai Kartanegara, merumuskan perencanaan strategik dalam merespons transformasi digital dan meningkatnya kehadiran kecerdasan buatan. Data dikumpulkan melalui wawancara semi-terstruktur dengan tujuh partisipan, yang terdiri atas kepala sekolah, koordinator kurikulum, guru, dan operator sekolah, serta dilengkapi dengan analisis dokumen. Data dianalisis secara tematik. Hasil penelitian menunjukkan bahwa arah strategik sekolah dibentuk melalui penguatan budaya digital, pengembangan kapasitas guru, dan integrasi teknologi ke dalam program sekolah. Pada saat yang sama, kecerdasan buatan belum terumuskan secara eksplisit dalam dokumen strategik sekolah dan masih dipahami secara tidak merata oleh para partisipan. Temuan ini menegaskan perlunya pergeseran dari penguatan praktik digital umum menuju perumusan posisi strategik kecerdasan buatan yang lebih eksplisit dan koheren dalam perencanaan kelembagaan, serta berkontribusi pada penguatan perencanaan strategik sekolah dasar melalui kejelasan integrasi kecerdasan buatan dalam arah kebijakan sekolah, pengembangan profesional guru, dan keselarasan kebijakan pendidikan.</i>

A. Introduction

Digital change in primary schools is no longer a minor technical adjustment. It now reaches into lesson preparation, information management, staff communication, and everyday decision-making. The growing presence of artificial intelligence has made this shift harder to ignore. In some schools, AI enters through teacher experimentation or professional development; in others, it appears more as a pressure than a plan. The issue, then, is no longer whether schools are exposed to digital change, but how they make sense of it strategically in relation to their educational priorities (Yim & Su, 2024; Zeng et al., 2025).

In the Indonesian context, this transformation is unfolding unevenly. National policies have increasingly encouraged digital integration in schools, supported by platforms, online learning resources, and infrastructure programs. However, access, teacher readiness, and institutional capacity remain varied, especially across regions and school types. While some schools have moved toward structured digital practices,

others continue to adopt technology in fragmented ways, often driven by external demands rather than internally developed strategies (Zeng et al., 2025; Handayani et al., 2025).

Despite increasing policy attention, national data continue to show uneven outcomes in foundational learning and digital readiness. Results from the Programme for International Student Assessment (PISA) 2022 indicate that Indonesian students continue to perform below the OECD average in reading and mathematics, highlighting persistent challenges in foundational learning. In parallel, national assessment data (Asesmen Kompetensi Minimum/AKM) also suggest variability in literacy and numeracy achievement across regions and school types. These conditions raise questions about how digital initiatives are positioned in relation to core learning goals. At the same time, teachers are expected to integrate digital tools without always receiving sustained institutional support or clear strategic direction. This creates a situation where digital practices may expand, yet their contribution to learning remains uncertain (Zeng et al., 2025; Firdaus et al., 2025; Deogaonkar, 2025).

This situation highlights the importance of strategic planning. A school plan is more than an administrative document or a list of annual activities. It reflects what a school chooses to prioritize, what it postpones, and what kind of future it is prepared to build. Yet responses to digital change often remain fragmented. Training, devices, online platforms, and administrative systems may all be introduced, but not always within a coherent institutional direction. Under those conditions, a school may appear digitally active while still lacking strategic clarity (Zeng et al., 2025).

The issue becomes sharper in primary education. Decisions made at this level affect young learners directly, and the margin for careless adoption is small. Digital tools may expand access and support teaching, but they may also intensify distraction, workload, and uncritical use. AI adds a further layer of tension because schools must now think not only about usefulness, but also about limits, professional judgement, and the educational values they are willing to protect (Agus, 2023; Alé et al., 2025).

Much of the existing literature has examined digital integration, teacher readiness, and instructional leadership. However, less attention has been given to how schools formulate strategic direction in response to technological change, particularly at the primary school level. Existing discussion has tended to remain close to classroom practice and teacher competence, while the institutional planning that

frames those practices is still less fully explored. Yet before technology becomes routine in classrooms, schools have already made strategic decisions about priorities, resources, professional development, and legitimate use. These are not merely technical choices, but institutional decisions that reflect leadership judgement and assumptions about educational change (Ali et al., 2024; Alzahrani, 2024; Hijrah, 2025; Rafida et al., 2024).

SD Negeri 001 Muara Badak, Kutai Kartanegara, offers a useful case for this discussion. Established in 1971, the school is supported by relatively stable infrastructure, including full electricity and Wi-Fi access across its main and affiliated buildings. It accommodates 21 class groups (12 in filial units and 9 in the main school), supported by teaching staff predominantly holding undergraduate degrees, with one teacher holding a master's degree. Administrative and support personnel include staff with undergraduate and diploma qualifications, as well as school caretakers.

The school is also equipped with two office units, two library spaces, and a prayer facility located in the main school. Its status as a Google Reference School through an official designation issued on 16 December 2025 by the Country Lead (Olivia Basrin) points to strong digital visibility, but that recognition does not automatically indicate strategic depth. It also needs to be understood within the wider growth of platform-based and web-based learning resources in primary education (Arifin et al., 2026; Tanipu et al., 2026). Public recognition may signal innovation, yet it does not settle more difficult questions about uneven teacher capacity, long-term sustainability, alignment with student learning, or the place of AI in future planning. The significance of this case lies precisely in that gap between digital recognition and strategic coherence (Carvalho, 2023; Cheng & Wang, 2023).

This creates a more specific point of tension for the study. SD Negeri 001 Muara Badak has been publicly recognized for its digital development, suggesting a level of institutional readiness. However, such recognition does not necessarily reflect how emerging technologies are interpreted within school-level strategic planning. The case therefore raises a key question: how does a digitally recognized school move from visible digital activity toward a more explicit and coherent strategic position on artificial intelligence? This tension between recognition and strategic clarity remains underexplored in existing research and forms the central focus of this study.

This article therefore moves away from tool-centred accounts of digital change and treats it instead as a matter of strategic interpretation. Schools do not adopt technology in a neutral way. They decide what to legitimize, what to limit, and how change is translated into institutional priorities. On that basis, this study examines how SD Negeri 001 Muara Badak formulated its strategic response to digital transformation and the growing presence of AI, as reflected in the views of school personnel and in school documents. The contribution of this article lies in showing that visible digital progress, even in a school with strong public recognition, does not by itself produce an equally clear strategic position on artificial intelligence (Li & Manzari, 2025).

This study aims to examine how SD Negeri 001 Muara Badak formulates its strategic response to digital transformation and the growing presence of artificial intelligence.

B. Method

This study employed a qualitative single-case study design to examine how a primary school formulated its strategic response to digital transformation and the growing presence of artificial intelligence. The study was conducted at SD Negeri 001 Muara Badak, a public primary school in Kutai Kartanegara, East Kalimantan, Indonesia. Data collection was carried out between February and April 2026. Prior to data collection, formal permission was obtained from the school, and all participants provided informed consent.

Participants were selected purposively based on their involvement in decision-making processes and their roles in implementing school programs. Seven participants were included in the study: one principal, one curriculum coordinator, four teachers, and one school operator. The selection was not based on numbers alone, but on their positions within the school structure. The principal and curriculum coordinator were directly involved in shaping school direction and planning decisions. The teachers represented those who carried out instructional practices and experienced the translation of policy into classroom work. The school operator was included to capture the technical and operational side of digital implementation. This combination was intended to reflect both the level of decision-making and the level of enactment within the school.

Data were collected through semi-structured interviews and document analysis. The interviews explored participants' views on school priorities, leadership decisions, teacher preparation, digital practices, and how artificial intelligence was understood within the school context. A semi-structured format was used to maintain focus while allowing participants to explain their experiences in their own terms. Each interview lasted approximately 30–50 minutes, was conducted individually, and was audio-recorded with participants' consent. The recordings were then transcribed verbatim for analysis.

Document analysis was used to examine how strategic direction was formally expressed. The documents included the school's vision and mission statements, the *Kurikulum Operasional Satuan Pendidikan* (KOSP), school work plans, annual programs, and the official document confirming the school's status as a Google Reference School. These documents were treated as institutional texts that reflected what the school had prioritized, formalized, and stabilized over time. Reading these documents alongside interview data made it possible to compare institutional language with participants' interpretations and everyday practices (Pratono et al., 2023; Elfira et al., 2023).

Then the data were analyzed using thematic analysis following the approach of Braun & Clarke (2006). The analysis began with repeated reading of the interview transcripts and documents to develop familiarity with the data. In the next stage, meaningful segments of the data were coded inductively based on their substantive relevance to the study focus. Similar codes were then compared and grouped into broader categories, including strategic direction, teacher capacity, digital development, and institutional views on artificial intelligence. These categories were reviewed across the dataset and refined through an iterative process to examine their internal consistency and their distinction from one another. Final themes were established when the categories showed sufficient coherence, were supported by data from more than one source, and captured patterns that were significant for explaining how the school interpreted and translated technological change into strategic planning. Throughout the analysis, interview data and documents were read alongside each other so that emerging themes were grounded not only in participants' accounts but also in the school's formal institutional texts (Lundqvist & Westerlund, 2022; Carvalho, 2023).

To strengthen trustworthiness, the study employed data triangulation by comparing interview findings with documentary evidence. In addition, member checking was conducted by sharing summaries of findings with selected participants to confirm the accuracy of interpretations. The inclusion of participants from different roles also allowed multiple perspectives to be considered. Confidentiality was maintained through the use of pseudonyms for participants. These steps were taken to enhance the credibility of the findings and ensure that the analysis remained closely grounded in the data.

C. Results and Discussion

1. Results

The main themes identified in this study are summarized in Table 1 below.

Table 1. Summary of the Main Themes Identified in the Study

Theme	Description	Key Evidence
Digital development as strategic direction	Digital practices are integrated into planning, communication, and school routines rather than treated as separate initiatives	Principal, Curriculum Coordinator, Teacher 1; school documents (vision, KOSP, Google Reference School status)
Teacher capacity as a condition for continuity	Sustained digital development depends on teachers' readiness, learning, and confidence rather than infrastructure alone	Principal, Teachers 2-3, School Operator; teacher development records
Uneven understanding of artificial intelligence	AI is recognized but interpreted differently across participants, with cautious and varied responses	Principal, Curriculum Coordinator, Teachers, School Operator
Gap between digital continuity and formal AI articulation	Digital development is documented in school plans, while AI is not yet clearly reflected in formal institutional language	KOSP, school programs, Google Reference School document

The findings are presented in four themes: the integration of digital development into the school's strategic direction, the central role of teacher capacity in sustaining that direction, the uneven institutional understanding of artificial intelligence, and the gap between digital continuity and the formal articulation of AI in school documents.

a. Digital development has become part of the school's strategic direction

The interview data showed that digital development was no longer treated as an additional program or a temporary response to external pressure. Instead, it had become part of the school's direction and everyday working logic. Participants spoke about digital practice not as a separate initiative, but as something that had gradually entered planning, communication, teaching routines, and school organization.

The principal described this shift as a matter of direction rather than compliance:

"Digital development was not something we added only because schools were expected to use technology. We had already seen that it affected teaching, communication, and the way the school organized its work. That was why it became part of our planning, even if it was not always written in highly technical terms." (Principal)

A similar view appeared in the account of the curriculum coordinator, who explained that digital work had gradually moved into the school's regular planning:

"Over time, digital practice became part of how we prepared programs, supported teachers, and responded to new demands. It was no longer seen as a separate activity. It was already inside the way the school moved." (Curriculum Coordinator)

Teachers also described digital tools as part of ordinary professional practice rather than something exceptional. One teacher connected this shift to lesson preparation, communication, and access to teaching materials:

"Before, digital tools were used only by a few teachers. Later, they became part of our regular work. We prepared materials differently, shared information more quickly, and became more used to working with online platforms." (Teacher 1)

This pattern was also supported by the document analysis. The school's vision and mission reflected an orientation toward educational improvement and adaptation to change. This orientation is reflected in statements such as:

"The school is committed to improving learning quality through the use of technology and adaptive educational practices." (School Vision–Mission Document).

The KOSP and school program documents showed that digital learning and technology-supported activities had already been incorporated into planning priorities. It emphasizes this direction, for example:

"Digital learning is integrated into teaching practices to support student engagement and access to learning resources." (KOSP Document).

In addition, the document confirming the school's status as a Google Reference School reinforced the school's public identity as an institution with a strong digital profile. The document confirming the school's status as a Google Reference School highlights its role in digital innovation, stating that the school is recognized for its *"integration of digital tools and collaborative learning practices within the school environment."* (Google Reference School Document)

Read together, the interview and document data suggest that digital development had already been absorbed into the school's strategic direction in a visible and sustained way.

In contrast, no comparable statements related to artificial intelligence were found in the reviewed documents, indicating that AI had not yet been formalized within institutional planning.

b. Teacher capacity was treated as the main condition for continuity

The second theme concerned teacher capacity. Across the interviews, participants returned repeatedly to the same point: digital development could not be sustained by devices, platforms, or school reputation alone. Continuity depended on whether teachers were able to adapt, learn, and work with confidence.

The principal expressed this very directly:

"A school can have facilities, but that does not automatically change teaching. What matters is whether teachers are ready, whether they are willing to learn, and whether the school keeps supporting that process. For us, that became an important part of planning." (Principal)

Teachers also spoke about teacher learning as a practical issue rather than an abstract policy goal. One teacher described how repeated exposure and training had gradually reduced hesitation:

"The more often we joined training or practiced together, the less afraid we felt. At first, some of us were hesitant. Later, we became more confident in preparing digital materials and using them in class." (Teacher 2)

At the same time, readiness was not evenly distributed. Another teacher noted that staff moved at different speeds:

"Not everyone moved at the same pace. Some teachers adapted quickly because they were already familiar with digital tools. Others needed more time and more support. That difference was still visible." (Teacher 3)

The school operator added a similar point from the technical side:

"From the school system side, systems can be introduced, but they still depend on people. If teachers are not supported continuously, the system may exist, but it will not be used consistently." (School Operator)

The document data pointed in the same direction. This is also reflected in school program records, which include activities such as: *"Teacher development programs are conducted regularly to support the improvement of instructional practices, including the use of digital learning tools."* (School Program Document). The KOSP and school program records included activities related to teacher development and school improvement, while other school records indicated continued attention to digital learning practices. These materials support the view that teacher capacity was not treated as a secondary matter. It was positioned as one of the conditions that allowed the school's digital direction to continue.

c. Artificial intelligence had entered school awareness, but not with the same clarity

A different pattern appeared when participants discussed artificial intelligence. While digital transformation had already been normalized in school life, AI remained less settled. Participants recognized its relevance, but their responses were more cautious, varied, and tentative.

The principal framed AI as an issue that could not be ignored, but one that required restraint:

"We understood that AI was becoming part of educational discussion and that schools could not ignore it. Still, in primary education we had to be careful. We needed to think about what was appropriate, what was useful, and what should not be adopted too quickly." (Principal)

The curriculum coordinator described AI as something that had entered discussion, but had not yet become a formal institutional priority:

"AI had started to appear in conversations, especially when teachers talked about preparing materials or searching for ideas. But at school level, we had not yet turned it into a formal strategic focus. It was still something we were trying to understand." (Curriculum Coordinator)

Teachers also differed in how they positioned AI. One teacher viewed it as a practical support, especially for preparation:

"I could see that AI might help teachers save time, especially when preparing drafts or looking for examples. But I still felt that the teacher had to decide what was suitable for children." (Teacher 4)

Another teacher was less certain:

"I had heard a lot about AI, but I was still not fully sure how far it should be used in primary school. It sounded useful, but it also raised questions. We needed clearer direction if it was going to become part of school planning." (Teacher 1)

The school operator drew a clear distinction between established digital systems and the still-emerging place of AI:

"From the school system side, AI was not yet something that had been formally prepared. We were more established in digital platforms and routine systems. AI was still at the level of awareness, not implementation." (School Operator)

These accounts indicate that AI had already entered the school's horizon but had not yet acquired a shared institutional meaning. It was present as awareness, curiosity, and caution, but not yet as a stable planning category.

d. School documents showed digital continuity, but not a clear strategic language for AI

The document analysis sharpened this contrast. Across the reviewed materials, digital development appeared in more than one form. The vision and mission suggested openness to improvement and change. The KOSP and school program documents reflected continuity in digital learning and teacher development. The Google Reference School document added further evidence of the school's recognized digital identity.

What did not appear with the same clarity was AI. None of the reviewed documents positioned artificial intelligence as an explicit strategic priority. This absence is evident in the reviewed documents, where no explicit reference to artificial intelligence was found in the vision, KOSP, or school program texts. There was no clear written statement that defined its place in school planning, teacher development, or instructional guidance. This absence became more striking when the documents were read alongside the interviews. Participants had already started to talk about AI, albeit cautiously, yet the formal planning documents had not translated that emerging awareness into clear institutional language.

This gap matters because it shows that the school's digital agenda was already visible and established, while AI remained largely outside the formal planning frame. In other words, digital continuity had already been documented, but AI had not yet been stabilized as a distinct strategic concern.

Taken together, the findings point to a clear tension within the case. SD Negeri 001 Muara Badak had already built a strong digital orientation, supported by routine practice, teacher development, and institutional recognition. Yet that strength did not automatically extend to artificial intelligence. Digital development had already become part of the school's planning direction, whereas AI was still being interpreted, weighed, and discussed without equivalent formal articulation. The case therefore suggests that digital maturity and AI preparedness did not develop at the same pace.

2. Discussion

The case of SD Negeri 001 Muara Badak shows that strategic planning in a digitally active primary school does not move in a linear way from technology adoption to institutional clarity. Digital direction was already visible in routines, teacher development, and formal documents, yet this did not lead automatically to a settled strategic position on artificial intelligence. The study points to a consistent pattern: digital maturity does not necessarily translate into readiness for emerging forms of technological change (Cheng & Wang, 2023; Dagli et al., 2023). This finding extends the work of Cheng and Wang (2023), who emphasized the role of digital leadership in supporting school transformation, by showing that such development does not automatically result in a clear strategic position on emerging technologies such as artificial intelligence.

Seen from a planning perspective, this distinction reflects a gap between operational continuity and institutional positioning. Strategic planning in schools is not limited to sustaining ongoing practices; it involves defining priorities, setting boundaries, and determining which developments should be formally recognized and stabilized. In this case, digital practices had already been operationalized and embedded in routines, while artificial intelligence had not yet been fully incorporated into the school's strategic framework. This suggests that planning is less about adopting tools and more about how institutions interpret and direct emerging change (Demartini et al., 2024; Deogaonkar, 2025). This also indicates that strategic planning cannot be reduced to a technical process of aligning programs or documenting

activities. It involves ongoing interpretation, where schools negotiate meaning, relevance, and limits as new forms of change emerge. In this sense, planning is not a static document, but a dynamic process shaped by how institutions respond to uncertainty over time.

The first finding shows that digital development has moved beyond isolated initiatives and has become part of the school's broader direction. Participants did not describe digital work as an optional program or a temporary response to external pressure. Instead, it had entered the school's everyday understanding of improvement. This indicates a level of continuity that is often difficult to sustain, particularly in contexts where digital initiatives depend on short-term enthusiasm or external demands. At the same time, continuity appeared to be maintained through repeated practice rather than consistently articulated through formal strategic language. This becomes more visible when the school is required to respond to newer developments such as artificial intelligence (Elfira et al., 2024). This finding is consistent with previous studies on digital integration in schools, which highlight the gradual embedding of digital practices into institutional routines, but it further shows that such integration does not necessarily lead to a clear strategic articulation at the planning level.

The second finding centers on teacher capacity. Participants consistently returned to teacher learning, confidence, and adaptation as the basis on which digital continuity rested. In this sense, teacher capacity functioned as the link between institutional ambition and everyday enactment. However, this capacity was uneven. Differences in readiness, pace, and confidence remained visible across staff. This unevenness challenges the assumption that implementation follows planning in a straightforward way. Strategic direction may be defined at school level, but it is always carried out by teachers working under different conditions and constraints. Planning therefore needs to account for variation as part of the condition of change itself (Lundqvist & Westerlund, 2022; Morze et al., 2023). This finding supports previous studies (Lundqvist & Westerlund, 2022; Morze et al., 2023), which emphasize the importance of teacher capacity in sustaining digital development, but also extends them by showing that such capacity is uneven and shapes how strategic planning is enacted in practice. This interpretation also shifts how teacher capacity is understood within strategic planning. Rather than being treated as a resource to be developed in a

linear way, it becomes part of the condition through which planning is realized. Strategic direction is not only implemented through teachers, but also shaped by their responses, adaptations, and constraints.

The third finding concerns the place of artificial intelligence, which had entered school awareness but had not yet become a stable strategic category. Unlike earlier digital developments, AI was approached with greater caution and less institutional certainty. This suggests that AI is not simply another addition to an existing digital repertoire but introduces a different kind of question. Earlier phases of digitalization often centered on access, efficiency, and communication. AI, by contrast, raises questions about judgement, authorship, and the boundaries of professional responsibility. In primary education, these concerns are especially significant because they relate directly to developmental appropriateness and the role of the teacher in guiding learning (Walter, 2024; Ristiani et al., 2025). This helps explain why AI is more difficult to formalize within school planning. It requires schools to take a position on issues that are not purely technical, but also pedagogical and ethical.

The document analysis reinforces this reading. While school documents showed continuity in digital priorities, they did not yet provide a clear strategic language for AI. This contrasts with studies that assume digital integration will gradually lead to institutional alignment, suggesting instead that formal strategic articulation may lag behind practice. This gap between practice and formal articulation is important. Institutional documents signal what a school is prepared to stabilize and recognize as part of its direction. The absence of explicit references to AI suggests that the school remained in an intermediate stage, where awareness and discussion had developed, but formal planning had not yet caught up. Such conditions allow space for reflection but also leave room for uneven interpretation and delayed collective decisions (Yim & Su, 2024; Zeng et al., 2025). This partly aligns with Yim and Su (2024) and Zeng et al. (2025), who highlighted the growing influence of digital leadership and AI in shaping school practices. However, the present study shows that at the primary school level, this influence may remain at the level of awareness and discussion without yet being translated into formal strategic planning.

These findings point to a clear implication: digital continuity and AI preparedness are related, but not interchangeable. A school may demonstrate stable digital practices and a strong culture of teacher development yet still be in an early

interpretive stage when new technologies emerge. Planning, therefore, cannot stop at sustaining existing practices. It needs to extend toward defining the place of new developments within institutional priorities.

The implications extend beyond technology use. For school leadership, digital strategy can no longer focus only on infrastructure or general technological competence. It requires explicit decisions about the role, limits, and educational purpose of emerging technologies. For teacher development, professional learning needs to move beyond technical skills toward supporting judgement and critical reflection. Teachers need space to consider when and how technological tools align with pedagogical aims, particularly in primary education.

For policy and evaluation, the case suggests caution in equating visible digital activity with strategic readiness. Schools may appear advanced in terms of digital engagement while still lacking a coherent position on emerging technologies. Evaluation frameworks should therefore look beyond the presence of digital practices and consider how schools' articulate direction, define boundaries, and support teacher judgement in relation to technological change (Elfira et al., 2024).

This study has limitations. It focuses on a single primary school with a distinctive digital profile, and the findings should be interpreted within that context. The use of interviews and document analysis provides insight into planning and institutional language but does not capture all dimensions of classroom enactment or informal practice. Future research could compare schools with different levels of digital development, examine how AI-related thinking evolves over time, or explore how strategic language is translated into classroom practice (Gordon et al., 2024).

Even with these limits, the case remains instructive because it captures a transitional condition that is likely to become more common. Schools that have already stabilized digital development are now encountering a different kind of strategic challenge. They are no longer asking only how to integrate technology, but how to define its place within educational purpose, professional responsibility, and the developmental needs of students. This suggests that the next phase of school planning lies in interpreting both the possibilities and the limits of emerging technologies with greater clarity.

D. Conclusion

This study shows that SD Negeri 001 Muara Badak has developed a recognizable strategic direction in digital development, where technology is embedded in school routines, teacher development, and planning documents. However, this continuity does not automatically extend to artificial intelligence. Although AI has entered school-level discussions, it has not yet been clearly articulated within formal planning. The findings indicate that digital maturity and AI preparedness are related but not equivalent dimensions of school development.

The study contributes by clarifying this distinction within a strategic planning framework. It highlights that planning in primary schools involves not only sustaining existing digital practices but also defining how emerging technologies are interpreted and positioned in relation to educational purposes. This shifts the focus from tool adoption toward institutional direction.

In practical terms, school leaders need to move beyond general digital initiatives by explicitly incorporating artificial intelligence into strategic planning. This includes developing clearer institutional language, strengthening professional dialogue, and aligning innovation with pedagogical priorities. At the policy level, more explicit guidance is needed regarding the scope and appropriate use of AI in primary education.

This study is limited to a single primary school and relies on interviews and document analysis, which may not capture all aspects of classroom practice. Future research could compare schools with different levels of digital development, examine how AI-related thinking evolves over time, and explore how strategic planning is translated into classroom-level practices.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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