



Platform-Mediated Managerial Reconfiguration in Primary School Administration through Google Workspace Integration

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Abstract: This study examines how Google Workspace integration reconfigures school administration in the context of an Indonesian primary school. While previous research on educational technology has largely focused on instructional innovation and digital learning, less attention has been given to how digital platforms reshape administrative governance and managerial functions at the school level. Addressing this gap, this study explores how Google Workspace mediates the reconfiguration of planning, organizing, directing, and controlling practices in primary school administration. A qualitative case study design was employed at SDN Banjarejo, Madiun City, Indonesia. Data were collected through semi-structured interviews with one principal, eight teachers, and two administrative staff, supported by non-participant observations and document analysis. The data were analyzed using thematic analysis through data condensation, data display, and conclusion drawing. The findings show that Google Workspace transforms planning into a continuous and data-informed process, organizing it into platform-mediated coordination, directing it into distributed digital leadership, and controlling it through real-time embedded accountability. These transformations indicate that digital platforms function not merely as administrative tools but as organizational infrastructures that reshape managerial practices and governance routines. Theoretically, this study contributes the concept of platform-mediated managerial reconfiguration to explain how digital transformation alters the logic, temporality, and coordination of school administration. In practice, the findings highlight the importance of leadership support, digital competence, a collaborative culture, and infrastructure readiness in sustaining digitally based school governance.

Keywords: Digital Transformation; Google Workspace; School Administration; Managerial Reconfiguration; Primary Education; Educational Governance

Introduction

Educational administration has undergone a profound transformation in response to the rapid expansion of digital technologies across educational systems worldwide. In contemporary educational governance, schools are no longer confined to conventional bureaucratic routines. However, they are increasingly required to operate within digitally mediated environments that enable efficiency, transparency, and real-time coordination. This shift reflects a broader transition from analog administrative

systems toward digitally integrated organizational practices, in which information flows, communication patterns, and decision-making processes are increasingly embedded within technological infrastructures (Bond et al., 2018; Selwyn, 2011).

From a theoretical perspective, digital transformation in education should not be understood merely as the adoption of technological tools, but rather as a structural reconfiguration of organizational processes and governance mechanisms. Existing literature has highlighted how information and communication technologies support administrative efficiency, improve communication, and facilitate data management (Dexter, 2018). However, much of this scholarship remains grounded in an instrumental perspective, treating digital platforms as supplementary tools rather than as constitutive elements that reshape the enactment of administrative functions. Digital platforms increasingly function as infrastructures that mediate governance, coordination, and decision-making processes within educational organizations (Kerssens & Dijck, 2021; Sholeh et al., 2022; Williamson, 2017). Consequently, there is limited understanding of how digital infrastructures fundamentally alter the nature, temporality, and coordination of managerial practices within school organizations.

This limitation is particularly evident in studies of educational administration, where the dominant focus continues to privilege instructional innovation and digital learning environments (Nurohmah & Ma'rifah, 2025; OECD, 2021; Trust & Whalen, 2020). While these studies provide valuable insights into pedagogical transformation, they tend to overlook how administrative governance itself is being redefined in digitally mediated contexts. Classical managerial functions such as planning, organizing, directing, and controlling are often treated as stable and sequential processes (Bush, 2020; Hallinger, 2011), despite increasing evidence that digital platforms enable more fluid, simultaneous, and data-driven forms of organizational coordination (Dexter, 2018; Khofi et al., 2026). This indicates a critical theoretical gap in understanding how digital transformation reconfigures the foundational logic of administrative work in educational institutions.

In the context of developing countries, including Indonesia, this gap becomes even more significant. National initiatives promoting digital education, such as the implementation of institutional digital accounts and the integration of cloud-based platforms, have accelerated the adoption of digital tools in school administration (OECD, 2021). These initiatives aim to enhance efficiency, accountability, and transparency in educational management. Nevertheless, empirical evidence explaining how such platforms reshape administrative practices at the micro-institutional level remains limited. Existing studies tend to emphasize outcomes such as efficiency and collaboration, while paying insufficient attention to the deeper transformation of managerial functions and governance structures (Kozma, 2011).

Addressing this gap, the present study reconceptualizes digital transformation in school administration as a process of platform-mediated managerial reconfiguration. Rather than viewing digital technologies as external supports, this study positions digital platforms as organizational infrastructures that actively reshape how managerial functions are performed, coordinated, and experienced. In this perspective, planning is no longer a periodic activity. However, it becomes a continuous, data-driven process, with organizing shifting from hierarchical role distribution toward platform-based coordination, directing evolving into distributed and interactional leadership practices, and controlling transforming into real-time embedded accountability (Williamson, 2017; Selwyn, 2016).

By adopting a qualitative case study approach in an Indonesian primary school context, this study provides an in-depth analysis of how digital platforms such as Google Workspace for Education reconfigure administrative governance at the school level. The study offers three key contributions. First, it advances the literature by moving beyond instrumental accounts of educational technology toward a structural understanding of digital transformation in administrative governance (Kerssens & Dijck, 2021). Second, it introduces platform-mediated managerial reconfiguration as a new analytical lens for examining how digital infrastructures reshape managerial functions. Third, it provides empirical insights into how digital transformation operates within resource-constrained and context-specific educational settings, thereby enriching the discourse on digital governance in developing countries.

Therefore, this study aims to analyze how digital platforms are integrated into school administration and how they fundamentally reshape managerial practices in planning, organizing, directing, and controlling. By foregrounding administration as a continuous, data-driven, and sociotechnically embedded process, this study contributes to a deeper understanding of digital transformation as a reconfiguration of governance rather than a mere technological enhancement.

Method

This study employed a qualitative case study design to examine how the integration of Google Workspace reconfigures managerial functions in primary school administration. A case study design was appropriate because it enables an in-depth investigation of a contemporary phenomenon within its real-life context, particularly when the boundaries between the phenomenon and the context are closely connected (Yin, 2018). In this study, Google Workspace was not treated merely as a technical tool but as a digital infrastructure that mediates planning, organizing, directing, and controlling practices in school administration.

The research was conducted at SDN Banjarejo, Madiun City, Indonesia. The school was purposively selected because it had actively integrated Google Workspace for Education into its administrative and instructional activities. The participants consisted of eleven school members: one principal, eight teachers, and two administrative staff. They were selected based on their direct involvement in administrative processes, including planning, coordination, leadership communication, reporting, and supervision.

Data were collected from January to March 2025 through semi-structured interviews, non-participant observations, and document analysis. Semi-structured interviews explored participants' experiences in using Google Workspace for administrative purposes. Each interview lasted approximately 45 to 60 minutes and was audio-recorded with participants' consent. Observations examined the use of Google Drive, Google Docs, Google Forms, Google Meet, and Google Classroom in documentation, coordination, communication, and reporting. Document analysis included school planning documents, digital archives, administrative reports, meeting records, and files stored in Google Workspace. The use of interviews, observations, and documents allowed the researcher to compare participants' accounts with actual practices and institutional records.

To clarify the focus of data collection, the relationship between managerial functions, data focus, and data sources is presented in Table 1.

Table 1. Focus of Data Collection

Managerial Function	Data Focus	Data Sources
Planning	Digital planning, data use, document revision, shared access, and collaborative decision-making	Principal, teachers, school planning documents, Google Drive files
Organizing	Task distribution, role coordination, communication flow, shared responsibilities, and digital document management	Teachers, administrative staff, shared documents, observation notes
Directing	Leadership support, digital mentoring, internal communication, problem-solving, and staff guidance	Principal, teachers, meeting records, Google Meet activities
Controlling	Digital reporting, supervision, monitoring, data visibility, and accountability mechanisms	Principal, administrative staff, administrative reports, archived documents
Enablers and constraints	Digital competence, infrastructure readiness, collaborative culture, leadership support, and technical challenges	Principal, teachers, administrative staff, observation notes

Data were analyzed using thematic analysis following the interactive model of data condensation, data display, and conclusion drawing (Miles et al., 2014). The analysis began with repeated reading of interview transcripts, observation notes, and documents to identify meaningful units related to digital administrative practices. Initial codes were then generated and grouped into broader categories reflecting changes in managerial functions. These categories were synthesized into major themes, including continuous data-driven planning, platform-mediated organizing, distributed digital leadership, embedded digital accountability, and the enablers and constraints of digital transformation. The analysis was conducted inductively from participants' experiences and was theoretically informed by the concepts of digital transformation, sociotechnical change, and classical managerial functions.

To strengthen analytical transparency, the stages of thematic data analysis are presented in Table 2.

Table 2. Stages of Thematic Data Analysis

Stage	Analytical Activity	Output
Data familiarization	Reading interview transcripts, observation notes, and school documents repeatedly	Initial understanding of recurring patterns in digital administrative practices
Initial coding	Identifying meaningful units related to planning, organizing, directing, controlling, leadership support, competence, and infrastructure	Initial codes representing digital administrative practices
Category development	Grouping related codes into broader analytical categories	Categories such as data-informed planning, platform-based coordination, digital leadership, and digital supervision
Theme construction	Synthesizing categories into major themes	Themes on platform-mediated managerial reconfiguration
Interpretation	Relating themes to digital transformation, sociotechnical perspectives, and managerial functions	Theoretical explanation of how Google Workspace reconfigures school administration

Verification	Comparing interview, observation, and document data through triangulation and member checking	Credible and empirically grounded findings
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Trustworthiness was ensured through credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). Credibility was strengthened through triangulation and member checking. Transferability was supported by providing contextual descriptions of the research site, participants, and administrative practices. Dependability was maintained through an audit trail documenting data collection, coding, categorization, and theme development. Confirmability was supported through reflexive notes and systematic comparison across data sources to ensure that the findings were grounded in the data.

Ethical considerations were observed throughout the research process. Ethical approval was obtained from the relevant institutional authority before data collection. All participants received information about the purpose of the study, the voluntary nature of their participation, and their right to withdraw. Informed consent was obtained before interviews and observations; participants' identities were anonymized, and all data were securely stored and used only for research purposes.

Result

1. Reconfiguring Planning as a Continuous Data-Driven Process

The findings indicate that the planning function in school administration is no longer enacted as a periodic and document-based activity, but has been reconfigured into a continuous, data-driven process mediated by digital platforms. The integration of Google Workspace enables real-time access to historical and current data, allowing planning to evolve as an iterative and adaptive process rather than a fixed annual routine. This transformation reflects a shift from static administrative planning toward continuous administrative flow, where decision-making is dynamically informed by accessible and shared digital data. To illustrate this transformation, Table 3 presents the key dimensions of digitally mediated planning along with supporting empirical evidence.

Table 3. Reconfiguration of Planning Practices

Aspect	Description	Interview Evidence
Planning Logic	Continuous and data driven planning	<i>"Planning is no longer once a year, we keep updating based on available data." (Principal)</i>
Digital Infrastructure	Use of shared platforms for planning	<i>"All planning documents are stored in Google Drive and can be accessed anytime." (Teacher)</i>
Participation	Collaborative and distributed planning	<i>"Teachers are involved because we can access and edit documents together." (Teacher)</i>
Key Impact	Increased adaptability and responsiveness	<i>"We can immediately revise plans when needed." (Principal)</i>

As shown in Table 3, planning practices are embedded within digital infrastructures that enable constant revision, shared access, and collaborative decision-making. Rather than being confined to formal planning cycles, planning becomes an ongoing organizational process shaped by data availability and platform accessibility. This finding suggests that digital transformation alters not only the tools of planning but also its temporal structure and organizational logic.

2. Organizing as Platform Mediated Coordination

The organizing function has shifted from a hierarchical distribution of roles toward a platform-mediated coordination system. Digital platforms serve as shared organizational spaces where tasks, documents, and responsibilities are distributed and collectively accessed. This transformation reduces reliance on formal bureaucratic procedures and enables more horizontal and flexible coordination among school personnel.

Table 4. Platform Mediated Organizing

Aspect	Description	Interview Evidence
Organizational Logic	Platform based coordination	<i>"We coordinate through shared files, so everyone knows their tasks." (Teacher)</i>
Communication	Real time and asynchronous interaction	<i>"We don't always need meetings, communication happens through the platform." (Teacher)</i>
Transparency	Open access to administrative documents	<i>"All files are visible, so there is no confusion." (Administrative Staff)</i>
Key Impact	Reduced miscommunication and faster coordination	<i>"Work becomes faster because everything is already organized." (Teacher)</i>

The findings demonstrate that organizing is no longer dependent on formal hierarchies or physical coordination, but is embedded within digital infrastructures that enable real-time interaction and shared access to information. This reflects a shift toward distributed coordination, where organizational processes are enacted through platforms rather than strictly through positional authority. Consequently, digital platforms function not only as tools but as coordinating mechanisms that reshape organizational relationships and workflows.

3. Directing as Distributed Digital Leadership

The directing function is reconfigured from a top down instructional process into a form of distributed digital leadership embedded within everyday interactions. The principal plays a crucial role, not as a sole authority figure, but as a facilitator who supports, guides, and enables teachers to engage with digital systems. Leadership is enacted through continuous communication, mentoring, and collaborative problem solving mediated by digital platforms.

Table 5. Digital Leadership and Directing

Aspect	Description	Interview Evidence
Leadership Style	Supportive and facilitative	<i>"The principal guides us, not just gives orders." (Teacher)</i>
Strategy	Continuous training and mentoring	<i>"We are trained to use digital tools step by step." (Teacher)</i>
Interaction	Ongoing and open communication	<i>"We can directly ask when we face problems." (Teacher)</i>
Key Impact	Increased confidence and engagement	<i>"We feel more confident using digital systems." (Teacher)</i>

As indicated in Table 5, directing is no longer limited to formal instructions but is embedded within relational and interactional practices supported by digital communication. This suggests a shift toward interactional leadership, where leadership emerges through ongoing engagement rather than episodic directives. Digital platforms facilitate this process by enabling continuous connectivity and reducing barriers between leaders and staff.

4. Controlling as Real-Time Embedded Accountability

The controlling function has evolved into a system of real-time embedded accountability enabled by digital supervision. Monitoring is no longer conducted through periodic evaluation of physical documents but is instead integrated into digital platforms that provide immediate access to reports and administrative data. This transformation enhances transparency and encourages timely completion of tasks. Table 6 summarizes the findings on digital control.

Table 6. Digital Control and Accountability

Aspect	Description	Interview Evidence
Monitoring System	Real time digital supervision	<i>"The principal can check reports anytime." (Teacher)</i>
Reporting Mechanism	Digital submission and storage	<i>"All reports are uploaded to Google Drive." (Administrative Staff)</i>
Transparency	Open and accessible monitoring system	<i>"Everything is visible, so we must be disciplined." (Teacher)</i>
Key Impact	Increased accountability and timeliness	<i>"We complete tasks faster because they can be monitored directly." (Teacher)</i>

These findings indicate that control is embedded within the digital system itself, where accountability is continuously enacted through visibility and accessibility of data. This reflects a shift from external supervision to system-embedded control, in which the platform itself becomes a mechanism of governance.

5. Enablers and Constraints of Platform Mediated Transformation

The transformation of administrative practices is shaped by both enabling and constraining factors. While digital platforms and leadership support facilitate transformation, limitations in digital competence and infrastructure create challenges in implementation.

Table 6. Enablers and Constraints

Aspect	Description	Interview Evidence
Enablers	Platform availability and leadership support	<i>"Google Workspace helps us manage everything." (Teacher)</i>
Organizational Culture	Collaborative work practices	<i>"We help each other when facing difficulties." (Teacher)</i>
Constraints	Limited digital competence	<i>"Not all teachers are equally skilled." (Administrative Staff)</i>
Technical Issues	Internet instability	<i>"Sometimes the internet slows down our work." (Administrative Staff)</i>

The findings suggest that digital transformation is not solely determined by technological availability but is shaped by the interaction between human capacity, organizational culture, and infrastructure conditions. This highlights the sociotechnical nature of digital administrative transformation, in which successful implementation depends on alignment between technological systems and user competencies.

Discussion

The findings of this study demonstrate that Google Workspace integration in school administration does not merely represent the digitization of administrative documents. Rather, it reflects a broader transformation in how managerial functions are enacted, coordinated, and monitored within the school organization. The use of shared folders, collaborative documents, digital communication channels, and online reporting systems reconfigured administrative practices from paper-based,

hierarchical, and periodic routines into more continuous, collaborative, and visible processes. This finding extends previous discussions on digital transformation in education by shifting the focus from instructional innovation to administrative governance. While many studies emphasize digital technology for teaching and learning, this study shows that digital platforms also reshape the managerial logic of school administration (Bond et al., 2018; OECD, 2021; Selwyn, 2011; Trust & Whalen, 2020).

One of the most important findings is the transformation of planning into a continuous and data-informed process. In conventional administrative practice, planning is often treated as a formal activity conducted within specific institutional cycles. However, the findings show that Google Workspace enabled collaborative access, revision, and updating of planning documents. This changed planning from a static document-production activity into an ongoing organizational process. Teachers and administrative staff could contribute data, revise documents, and respond to emerging institutional needs without waiting for formal meetings. In this sense, digital platforms reshaped not only the efficiency of planning but also its temporality and participation structure. Planning became more open, iterative, and distributed across school actors. This finding is consistent with the idea that data and digital infrastructures increasingly influence educational decision-making and organizational routines (OECD, 2021; Williamson, 2017).

The organizing function was also reconfigured through platform-mediated coordination. Shared folders and digital documents made task distribution, document submission, and administrative progress more visible. This reduced dependence on verbal instructions and physical document circulation. More importantly, Google Workspace served as a coordination infrastructure that connected people, tasks, and documents within a single digital space. This finding suggests that digital transformation changes the organizational logic of school administration. Coordination is no longer mediated only by formal hierarchy or direct meetings, but also by platform visibility, shared access, and asynchronous communication. Therefore, digital platforms do not simply support organization; they participate in the organization of administrative work. This supports the broader argument that platformization in education integrates school activities into digital infrastructures that shape institutional practices and governance arrangements (Kerssens & Dijck, 2021; Williamson, 2017).

The findings also reveal a shift in the directing function from top-down instruction to distributed digital leadership. The principal played an important role in encouraging the use of Google Workspace, but leadership extended beyond formal authority. It was enacted through guidance, mentoring, problem-solving, and peer support. Teachers with stronger digital competence also helped colleagues who had difficulty using digital tools. This indicates that digital leadership in school administration is both formal and relational. It depends not only on the principal's direction but also on the school community's collaborative capacity. In this regard, digital transformation requires leadership that is facilitative, adaptive, and responsive to differences in staff competence. This aligns with studies emphasizing that leadership is essential for creating organizational conditions that support meaningful technology integration in schools (Dexter, 2018; Schmitz et al., 2023).

The controlling function shows another significant transformation. Through Google Drive and shared reporting systems, supervision became more immediate and embedded in daily administrative routines. The principal and administrative staff could monitor document completion, identify missing files, and provide feedback earlier. This increased transparency and encouraged staff accountability. However,

this finding also requires critical interpretation. While digital visibility can improve administrative discipline, it may also create new forms of pressure and surveillance if not managed carefully. Real-time monitoring should therefore be balanced with trust, professional autonomy, and ethical data governance. Digital accountability should not be reduced to constant control; it should support reflective, responsible, and transparent administrative practice. This critical point is important because platform-based and data-driven systems can reshape educational governance in ways that raise questions about privacy, autonomy, and institutional control (Kerssens & Dijck, 2021; Williamson, 2017).

Taken together, these findings support the idea that digital transformation in school administration is a sociotechnical process. The successful use of Google Workspace depended not only on platform availability but also on leadership support, digital competence, collaborative culture, and infrastructure readiness. Uneven digital skills and unstable internet connection remained important constraints. This shows that technology alone cannot transform school administration. Digital transformation occurs when technological systems, human capacity, organizational culture, and institutional routines interact productively. Without sufficient support and professional development, digital platforms may create additional workload rather than meaningful administrative improvement. This is consistent with previous studies showing that teachers' digital competence, confidence, training, and infrastructure conditions strongly influence ICT implementation in schools (Bond et al., 2018; Trust & Whalen, 2020).

These findings are also relevant to the Indonesian primary school context, where school improvement is closely connected to planning, implementation, leadership, teacher readiness, and institutional adaptability. Previous studies have shown that school management contributes to educational quality through program planning, implementation, problem-solving, and evaluation (Nur et al., 2022). Effective school and classroom management also require careful planning, collaborative implementation, continuous supervision, and the ability to respond to curriculum and resource challenges (Mubarok et al., 2023; Nurohmah & Ma'rifah, 2025; Rahmawati & Sholeh, 2021). In addition, recent research has highlighted that administrative digitalization can improve efficiency, transparency, and professional practice, but its success depends on organizational readiness and the capacity of school actors to adapt to new forms of technology-mediated work (Khofi et al., 2026; Maskanah et al., 2026). These studies support the present finding that digital transformation in school administration should be understood as a managerial and sociotechnical change process rather than merely as the use of digital applications.

Based on the findings, Google Workspace integration did not merely digitize administrative documents but reconfigured the managerial logic of school administration. The platform mediated the enactment of planning, organizing, directing, and controlling through shared access, digital coordination, distributed support, and real-time accountability. This process is summarized in Figure 1.

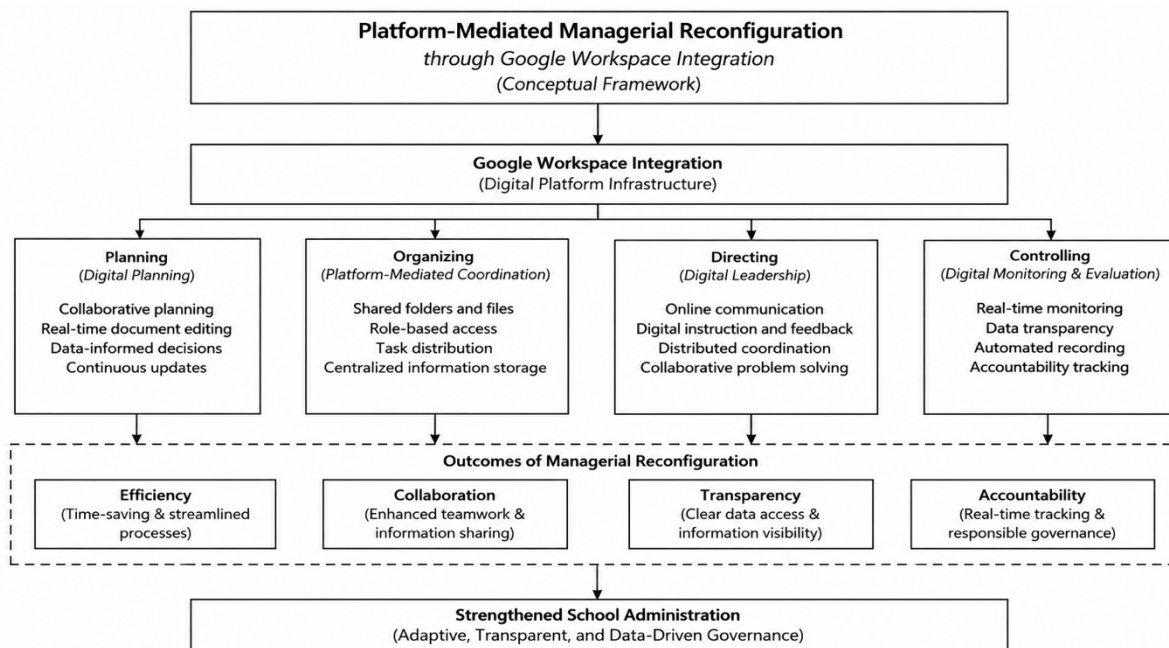


Figure 1. Platform-Mediated Managerial Reconfiguration in School Administration

Figure 1 illustrates that Google Workspace functions as a digital administrative infrastructure that mediates the reconfiguration of school managerial functions. Planning is reconfigured as continuous, data-informed planning; organizing as platform-mediated coordination; directing as distributed digital leadership; and controlling as embedded digital accountability. Sociotechnical conditions, including leadership support, digital competence, infrastructure readiness, and collaborative culture, support these four transformations. The model shows that digital transformation in school administration is not a simple shift from paper to platform, but a reconfiguration of governance routines toward more adaptive, transparent, collaborative, and accountable school administration.

The main theoretical contribution of this study lies in the concept of platform-mediated managerial reconfiguration. This concept explains how digital platforms reshape the four classical managerial functions of planning, organizing, directing, and controlling. Planning becomes continuous and data-informed; organizing becomes platform-mediated and transparent; directing becomes distributed and interactional; and controlling becomes embedded in digital accountability systems. This contribution challenges the classical view of school administration as a sequence of separate managerial functions. Instead, the study shows that managerial functions increasingly overlap and operate through integrated digital infrastructures. In doing so, the study contributes to the literature on educational administration, digital leadership, and platform governance by offering an analytical lens for understanding how school administration is reorganized through digital platforms.

Practically, the findings imply that schools need to approach digital transformation as an organizational change process, not merely as the adoption of applications. School leaders should ensure that digital platforms are supported by clear administrative procedures, staff training, collaborative mentoring, and reliable infrastructure. Teachers and administrative staff need continuous professional development to improve their confidence and competence in using digital tools. In addition, schools should develop ethical guidelines for digital supervision, document access, and data management to ensure that transparency does not become excessive

surveillance. These practical implications are especially relevant for schools in developing contexts, where digital adoption is often shaped by uneven infrastructure, limited professional training, and varying levels of digital readiness (OECD, 2021).

Overall, this study demonstrates that Google Workspace integration can strengthen school administration by making administrative work more adaptive, collaborative, transparent, and accountable. However, these benefits depend on the alignment between digital infrastructure, leadership practices, staff competence, and organizational culture. Digital transformation in school administration should therefore be understood not as a technical shift from paper to platform, but as a reconfiguration of managerial practices and governance routines within a sociotechnical school environment.

Conclusion

This study concludes that Google Workspace integration reconfigures primary school administration by transforming managerial functions into more adaptive, collaborative, transparent, and accountable practices. Planning shifted from periodic document preparation to a continuous and data-informed process; organizing became more visible through platform-mediated coordination; directing evolved into distributed digital leadership supported by mentoring and peer assistance; and controlling was strengthened through real-time supervision and embedded accountability. These findings indicate that digital transformation in school administration is not merely a technical shift from paper-based documents to digital platforms, but a broader sociotechnical change in how school actors plan, coordinate, lead, monitor, and account for administrative work.

Theoretically, this study contributes the concept of platform-mediated managerial reconfiguration to explain how digital platforms reshape the logic, temporality, and coordination of school administration. In practice, the findings highlight the need for school leaders to support digital transformation through clear procedures, continuous professional development, a collaborative work culture, reliable infrastructure, and ethical data governance. However, this study is limited to a single primary school case, so its findings are intended for analytical rather than statistical generalization. Future research should examine similar digital administrative transformations across different school types, regions, and institutional contexts, and further investigate their long-term effects on school performance, staff workload, professional autonomy, and data governance.

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