



Innovating Digital Administrative Governance through Principal Capacity Development: Optimizing SIMPATIKA and SIMPEG-Based Management Practices

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Abstract : Digital transformation in educational administration requires school leaders to develop competencies in managing institutional data and utilizing digital platforms for effective governance. However, many principals still face challenges in optimizing digital personnel management systems, including limited understanding of digital platforms, technical difficulties in data management, and inadequate utilization of administrative information for decision-making. This community service program aims to transform digital administrative governance through principal professional development using integrated management platforms, particularly SIMPATIKA and SIMPEG. The program involved needs assessment, digital administration training, simulations, and mentoring to strengthen principals' competence in managing digital personnel data and administrative processes. The results showed that the program improved participants' ability to utilize digital management platforms, enhanced data accuracy and reporting efficiency, and strengthened administrative governance practices. Continuous mentoring supported the sustainability of digital administrative implementation. This program highlights that digital transformation requires not only technological adoption but also leadership capacity development and institutional readiness. Its novelty lies in positioning principal professional development as a governance transformation strategy for developing efficient and data-driven digital administration systems.

Keywords : Digital Administrative Governance; Principal Professional Development; Digital Transformation.

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INTRODUCTION

Educational institutions that fail to transform their administrative governance into digital-based systems may experience difficulties in managing information accurately, efficiently, and strategically. In the era of digital transformation, administrative management is no longer merely a supporting activity but has become an essential component of institutional governance (Fatmawati et al., 2024; Tessema et al., 2024). The increasing demand for accurate data, transparent reporting, and responsive educational services requires schools and madrasahs to develop integrated administrative systems (Bibi et al., 2024; Hoepner et al., 2021; Zhang et al., 2024). Digital transformation in education does not only refer to the adoption of technological tools but also involves the ability of institutional actors to utilize technology as a governance instrument. Therefore, strengthening digital administrative competence becomes an important foundation for developing effective, accountable, and sustainable educational management systems.

The development of information and communication technology has encouraged educational institutions to adopt various digital platforms to improve administrative effectiveness. In the madrasah context, platforms such as SIMPATIKA (*Sistem Informasi Manajemen Pendidik dan Tenaga Kependidikan*) and SIMPEG (*Sistem Informasi Kepegawaian*) were developed to support the management of educator and personnel information (Oqal et al., 2023; Yaiprasert & Hidayanto, 2024). These platforms provide opportunities for institutions to organize personnel data, simplify administrative reporting, and improve information accuracy (Yaiprasert & Hidayanto, 2024). However, the existence of digital platforms does not automatically create effective digital governance. The success of digital transformation depends on the readiness of institutional leaders and administrative staff to understand, utilize, and integrate these platforms into daily administrative practices.

Despite the availability of digital management platforms, many educational institutions still face challenges in implementing effective digital administrative governance. These challenges are often related to limited digital competence, inadequate understanding of platform functions, and the inability to optimize administrative data for institutional decision-making (Faiz et al., 2023; Hedt-Gauthier et al., 2017). Instead of becoming strategic resources, digital platforms are sometimes used only to fulfill administrative obligations (Awaliah S et al., 2025; Munawwaroh, 2024). Consequently, personnel data management may remain fragmented, reporting processes may be inefficient, and institutional leaders may experience difficulties in obtaining accurate information for planning and evaluation (Aydemir & Türkel, 2022). This condition demonstrates that digital transformation requires not only technological infrastructure but also capacity development among individuals responsible for managing institutional administration.

Madrasah Aliyah (MA) Nurul Jadid represents an educational institution that encounters similar challenges in developing digital administrative governance. Although

the institution has strong institutional support and significant potential for development, the utilization of digital management platforms such as SIMPATIKA and SIMPEG has not yet been fully optimized. Initial observations and discussions with institutional leaders and administrative personnel indicated several challenges, including limited understanding of platform features, difficulties in managing personnel data, and insufficient utilization of digital information for administrative decision-making. These conditions affect the efficiency of personnel administration, data accuracy, and the institution's readiness to implement sustainable digital governance practices.

The central issue in digital administrative transformation is not merely the availability of technology but the ability of leaders to guide institutional adaptation toward digital practices. As the primary decision-maker, the madrasah principal plays a crucial role in ensuring that digital platforms are effectively utilized to support governance improvement. However, many digital training programs still emphasize technical operation rather than developing leadership capacity and governance perspectives. This creates a gap between technological adoption and institutional transformation. Therefore, principal professional development is needed to strengthen digital leadership capacity, enabling school leaders to manage digital administration strategically and encourage organizational readiness toward technology-based governance.

Addressing this gap requires an approach that positions digital platform training as a comprehensive governance transformation strategy rather than a technical activity. Through professional development, principals can develop the knowledge and skills required to utilize integrated management platforms, improve personnel data governance, and strengthen administrative decision-making (Mahsusi et al., 2024; Najiburrahman et al., 2025). This program introduces digital administrative governance transformation through principal professional development using SIMPATIKA and SIMPEG as integrated management platforms (Maulana et al., 2025; Rissola et al., 2022). The novelty of this approach lies in combining three essential dimensions: digital platform utilization, administrative data governance, and leadership capacity development. This integration enables principals to become active actors in developing efficient, systematic, and sustainable digital administration systems.

Therefore, this community service program aims to strengthen principals' competence in implementing digital administrative governance through professional development using integrated management platforms. Specifically, the program focuses on improving principals' understanding and practical skills in utilizing SIMPATIKA and SIMPEG, managing personnel information systematically, and integrating digital practices into institutional administrative workflows. Through training, practical simulation, and continuous mentoring, the program seeks to bridge the gap between technological availability and institutional capacity. Ultimately, this initiative is expected to contribute to the development of more efficient, accurate, and accountable administrative governance

systems while supporting the broader digital transformation of Islamic education institutions.

METHOD

This community service program employed a participatory professional development approach to support the transformation of digital administrative governance through the optimization of integrated management platforms. This approach was selected because digital transformation in educational administration requires more than the introduction of technological systems; it requires strengthening leadership capacity, improving administrative competence, and building institutional readiness to adopt digital practices. The program positioned principals and administrative staff as active partners who were involved in identifying administrative challenges, understanding digital governance concepts, practicing platform utilization, and developing sustainable strategies for implementation. Through this approach, digital platforms such as SIMPATIKA and SIMPEG were introduced not only as administrative tools but also as instruments to improve data management, reporting efficiency, and institutional decision-making.

The participants of this program were principals and administrative personnel who had direct responsibilities in managing educator and staff information systems. The selection of participants was conducted purposively based on their involvement in personnel administration, digital data management, and institutional reporting processes. The involvement of these participants was considered important because the success of digital administrative transformation depends significantly on the competence and commitment of individuals who operate the system. Principals were positioned as key actors because their leadership capacity determines the extent to which digital governance practices can be implemented, maintained, and developed within educational institutions.

The implementation of the program consisted of four integrated stages: needs identification, professional development training, practical implementation, and continuous mentoring. The initial stage was conducted through observation, interviews, and discussions with institutional representatives to identify existing administrative practices, challenges in utilizing SIMPATIKA and SIMPEG, and participants' digital competence levels. The findings from this stage were used to design training materials that were aligned with institutional needs. The following stages focused on strengthening participants' understanding of digital administrative governance, improving technical skills in utilizing integrated management platforms, and ensuring that digital practices could be implemented effectively within daily administrative workflows.

The professional development training was conducted through interactive workshops that combined theoretical explanations, demonstrations, discussions, and

hands-on practice. The training materials covered the concept of digital administrative governance, the role of principals as digital leaders, the functions of SIMPATIKA and SIMPEG, personnel data management procedures, and the importance of accurate digital information for institutional decision-making. During the practical sessions, participants were guided to explore platform features, manage personnel information, update administrative data, and understand procedures for improving data accuracy and accessibility. This practice-oriented approach enabled participants to directly connect digital platform utilization with their actual administrative responsibilities.

After the training activities, continuous mentoring was implemented to ensure that participants could maintain and develop the acquired competencies. The mentoring process involved technical assistance, consultation sessions, monitoring of implementation progress, and reflective discussions regarding challenges encountered during digital platform utilization. This stage was important because sustainable digital transformation requires continuous adaptation and institutional support. Through mentoring, participants were encouraged to independently apply digital administrative practices while receiving guidance from the service team in solving technical and managerial challenges.

The evaluation of the program was conducted through observation, interviews, discussions, and participant reflections. The evaluation focused on changes in participants' understanding of digital administrative governance, ability to utilize SIMPATIKA and SIMPEG platforms, improvement of administrative practices, and readiness to implement sustainable digital systems. The results of the evaluation were used to identify the effectiveness of the program and determine further development strategies for strengthening digital administrative governance.

The overall stages of program implementation are presented in Table 1.

Table 1. Stages of Digital Administrative Governance Transformation Program Implementation

Stages	Activities	Expected Outcomes
Needs Identification	Observation, interviews, discussions, and analysis of existing administrative practices and challenges in SIMPATIKA and SIMPEG utilization	Identification of institutional needs, digital competence gaps, and preparation of relevant training strategies
Professional Development Training	Workshops on digital administrative governance, principal digital leadership, SIMPATIKA/SIMPEG functions, personnel data management, and digital reporting procedures	Improvement of participants' understanding and competence in managing digital-based administration

Practical Implementation	Hands-on simulation of platform utilization, data management practices, administrative documentation, and information processing	Participants are able to apply digital management platforms in real administrative workflows
Continuous Mentoring and Evaluation	Technical assistance, consultation, monitoring, reflection, and evaluation of implementation progress	Sustainable digital administrative practices and strengthening of institutional digital governance

The method emphasized collaboration between the service team and participants by integrating professional development, practical implementation, and continuous mentoring. This approach ensured that participants were not only able to operate digital platforms but also understood their strategic role in improving administrative governance. Therefore, the program was designed to bridge the gap between technological availability and institutional capacity by developing principals as digital leaders who can encourage efficient, systematic, and sustainable administrative transformation in educational institutions.

RESULT AND DISCUSSION

1. Digital Leadership Competence Transformation through Professional Development

The first finding of this program was the improvement of principals' understanding and competence in implementing digital administrative governance. This finding indicates that digital transformation in educational institutions begins with strengthening the capacity of leaders who are responsible for directing institutional management changes. Before the implementation of the program, principals and administrative staff had already utilized digital platforms as part of their administrative responsibilities. However, the utilization of platforms such as SIMPATIKA and SIMPEG was still limited to fulfilling mandatory administrative requirements rather than being optimized as strategic management instruments.

The initial condition revealed that the main challenge was not the absence of digital systems but the limited understanding of how these systems could support effective administrative governance. Some participants understood the basic functions of digital platforms but had difficulties in managing data systematically, updating personnel information, and utilizing available information for institutional planning. Consequently, administrative processes were still dependent on individual practices, where data management and reporting procedures were often carried out based on personal experience rather than an integrated governance system.

As presented in Figure 1, the initial stage of the program involved interactive discussions, knowledge sharing, and professional development activities between the

service team and participants. This activity became an important foundation for building participants' awareness regarding the strategic role of digital platforms in improving institutional governance. Through discussion-based learning, participants were encouraged to identify existing administrative challenges and reflect on how digital transformation could provide solutions for improving data accuracy, administrative efficiency, and decision-making quality.

The professional development activities gradually changed participants' perspectives regarding the meaning of digital administration. Previously, digital platforms were often perceived as technical applications used only for completing administrative obligations. After participating in the program, participants began to understand that SIMPATIKA and SIMPEG could function as governance instruments that support systematic personnel management, transparent reporting, and evidence-based institutional decisions. This transformation demonstrates that digital competence involves not only technical skills but also the ability to understand the strategic value of technology in organizational management.

This finding strengthens the argument that successful digital transformation requires leadership capacity as a primary foundation. Technology adoption without capable leaders may result in limited utilization because digital systems depend on human competence and organizational commitment (Wiyono et al., 2021). Therefore, this program positions principal professional development as an essential strategy for transforming digital administration from a technical requirement into a sustainable governance practice.

2. Administrative Governance Transformation through Integrated Digital Platform Implementation

The second finding of this program was the transformation of administrative practices through the practical implementation of SIMPATIKA and SIMPEG platforms. This finding shows that after gaining a stronger understanding of digital governance concepts, participants were able to apply digital management procedures in their actual administrative responsibilities. The practical implementation stage became an important transition process because participants moved from understanding the importance of digital systems toward integrating technology into daily administrative workflows.

As illustrated in Figure 2, participants were directly involved in practical simulations using integrated management platforms with guidance from the service team. During this stage, participants practiced several administrative procedures, including managing educator and staff information, updating personnel data, organizing digital documents, and understanding reporting mechanisms. The activity was designed based on real administrative conditions faced by educational institutions, allowing participants to

experience how digital platforms could simplify and improve existing management processes.

The implementation process revealed several significant changes in administrative practices. Before the program, personnel information was commonly managed through separate documents and manual procedures, which created difficulties in monitoring data accuracy and accessibility. Through the utilization of integrated digital platforms, participants experienced that personnel information could be organized more systematically, updated more efficiently, and accessed more easily when needed for reporting or decision-making processes.

Furthermore, the use of digital platforms encouraged participants to develop stronger administrative discipline. Data management was no longer understood merely as an obligation to complete institutional reports but as an important process for maintaining information accuracy and accountability. Participants began to recognize that consistent data updating, proper documentation, and organized information management are essential elements of professional educational governance.

The transformation of administrative practices demonstrates that digital platforms function beyond technological tools. SIMPATIKA and SIMPEG became mechanisms for improving institutional organization, strengthening information management, and supporting more effective administrative decision-making (Gazi et al., 2024; Hermawan et al., 2024). This finding confirms that digital governance transformation occurs when technology is integrated with organizational practices and supported by users who understand its strategic functions.

Table 1. Changes in Digital Administrative Governance Practices

Administrative Aspect	Before Program Implementation	After Program Implementation
Personnel Data Management	Data managed through separate files and individual administrative practices	Data organized through integrated digital management platforms
Platform Utilization	Limited use for administrative submission purposes	Utilization for data management, monitoring, and reporting support
Administrative Documentation	Documentation processes were less systematic	Documentation became more structured and accessible
Decision Support	Limited utilization of administrative information	Digital data used to support institutional planning and evaluation

3. Sustainable Digital Governance through Continuous Mentoring

The third finding of this program was the development of sustainable digital administrative governance through continuous mentoring activities. This finding highlights that digital transformation does not end after participants receive initial training or understand the basic operation of digital platforms. Instead, sustainable digital governance requires a continuous process of adaptation, reinforcement, and institutional commitment to ensure that digital practices become part of everyday administrative routines. Although training provides participants with fundamental knowledge and technical skills, the implementation process often involves various challenges, including differences in digital competence, difficulties in adjusting previous administrative habits, and technical problems during platform utilization. Therefore, continuous mentoring becomes an essential mechanism to support participants in overcoming these challenges while ensuring that digital administrative practices can be implemented consistently. Through this process, digital transformation is not only understood as the adoption of technological systems but also as an organizational change that involves human capacity, work culture, and institutional readiness.

During the mentoring stage, participants received continuous assistance through consultation sessions, technical discussions, monitoring activities, and reflective evaluations conducted by the service team. The mentoring process focused on assisting participants in solving practical problems related to platform utilization, improving data management procedures, organizing administrative information, and adapting digital workflows according to institutional conditions. Unlike the training stage, which emphasized knowledge transfer and skill development, mentoring provided a more contextual learning experience because participants were directly guided while implementing digital administrative practices in their real work environment. This approach allowed participants to gradually develop independence in managing digital systems and encouraged them to identify solutions based on their own institutional needs. Furthermore, the interaction between facilitators and participants created a collaborative learning environment where challenges were discussed collectively, enabling participants to gain confidence and improve their problem-solving abilities in managing digital administration.

The mentoring activities also strengthened participants' ownership of digital transformation. Initially, some participants considered digital platforms as additional administrative responsibilities that required significant adaptation. However, continuous practice and guidance gradually changed this perception. Participants began

to recognize that digital systems could reduce administrative workload, improve data accuracy, and support more efficient reporting processes.

The sustainability of this transformation was also supported by the development of internal digital responsibility among participants. Principals and administrative staff were encouraged to become internal facilitators who could maintain digital practices after the completion of the program (Ahumada-Canale et al., 2023; Keller et al., 2023). This condition is important because sustainable digital governance depends not only on external assistance but also on internal commitment and institutional readiness.

This finding confirms that digital administrative transformation requires the integration of technology, leadership competence, and organizational commitment. The distinctive contribution of this program lies in positioning principal professional development as a governance transformation strategy rather than merely technical platform training (Noor et al., 2020; Oknora Firza et al., 2024). Through the combination of capacity building, practical implementation, and continuous mentoring, the program provides a sustainable model for developing efficient, accountable, and data-driven administrative governance in Islamic educational institutions.

CONCLUSION

This community service program on Digital Administrative Governance Transformation through Principal Professional Development using Integrated Management Platforms has successfully strengthened the capacity of principals and administrative staff in implementing digital-based administrative governance practices. The program demonstrated that digital transformation in educational administration does not only depend on the availability of platforms such as SIMPATIKA and SIMPEG but also requires leadership competence, digital literacy, and institutional readiness. Through professional development activities, practical implementation, and continuous mentoring, participants showed improved competence in utilizing digital platforms for managing personnel information, improving data accuracy, organizing administrative procedures, and supporting more effective institutional decision-making. The implementation process also revealed that digital transformation requires continuous adaptation and commitment from institutional actors. Although several challenges were encountered, including differences in participants' digital competence and technical obstacles during platform utilization, the participatory training approach and mentoring process effectively supported participants in overcoming these limitations. The program contributed to the development of more systematic administrative practices, increased awareness of digital governance principles, and strengthened institutional commitment to maintaining sustainable digital administrative systems. Therefore, principal professional development through integrated

management platforms can be considered a strategic approach for developing efficient, accountable, and data-driven administrative governance in educational institutions.

Based on the results of the program, sustainability efforts are needed to ensure that digital administrative transformation continues beyond the completion of the activity. Educational institutions are encouraged to establish an internal digital governance team that functions as a digital change agent to support platform utilization, monitor implementation progress, and assist other administrative personnel. Furthermore, continuous professional development programs should be conducted periodically to strengthen principals' and administrative staff's competencies in responding to technological developments. Collaboration among educational institutions is also recommended to facilitate knowledge sharing and the exchange of best practices in implementing digital governance. In addition, support from relevant stakeholders, including educational authorities and policymakers, remains important through infrastructure development, technical assistance, and policy support to ensure that digital transformation in educational administration can be implemented effectively and sustainably.

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