



## Digitization of Pesantren Administrative Management through Google Drive Optimization at the Pesantren Affairs Bureau of Nurul Jadid Islamic Boarding School

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**Abstract** : Digitalization of administrative governance is increasingly important for Islamic boarding schools to ensure systematic document management, efficient access, and collaborative work. However, the Islamic Boarding School Bureau of Pondok Pesantren Nurul Jadid requires strengthened capacity in organizing, storing, accessing, and distributing administrative documents digitally. This community service activity aimed to strengthen digital administrative governance through the optimization of Google Drive. The activity employed a participatory approach involving needs identification, training, hands-on practice, mentoring, and evaluation. The training focused on creating structured folders, storing and organizing documents, managing access permissions, sharing files, and supporting collaborative document management. Participants improved their comprehension and practical abilities to use Google Drive for administrative tasks. Systematic document arrangement and administrative file sharing among relevant people were also promoted. Google Drive appears to be a realistic and accessible digital platform for improving administrative control in Islamic boarding schools. The activity improved participants' technical skills and started more ordered and collaborative administrative practices. Institutional support is needed to standardize and maintain pesantren digital document management.

**Keywords** : Digital Administrative Governance, Google Drive, Administrative Management, Capacity Building.

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## INTRODUCTION

The rapid development of digital technology has significantly transformed the way educational institutions manage information, communication, and administrative processes (Abed Khasawneh et al., 2024; Mayta-Huiza et al., 2023). Digital transformation is no longer limited to business organizations but has also become an essential requirement for educational institutions, including Islamic boarding schools (*pesantren*). As institutions that combine academic education, character development, and community-based learning, Islamic boarding schools are required to develop adaptive management systems that can support institutional effectiveness (Klotz et al., 2023; Wang et al., 2022). One important aspect of this transformation is administrative digitalization, particularly in managing documents, student records, institutional reports, and internal communication systems (Nguyen & Ha, 2023).

Administrative management plays an important role in ensuring the effectiveness and sustainability of educational institutions. However, many educational institutions, particularly Islamic boarding schools, still face challenges in implementing digital-based administrative systems (Usman, Sahrani & Yusuf, 2024). Various administrative activities, such as document storage, data archiving, and information sharing, are often conducted using conventional methods involving physical documents and manual recording systems (Falcetta et al., 2023; Jiang et al., 2024). Although these methods have been widely used and are relatively familiar to staff, they often create limitations, including difficulties in searching for documents, risks of data loss or damage, inefficient document distribution, and limited opportunities for collaborative work among administrative personnel.

One of the simple and accessible digital solutions that can support administrative transformation is the utilization of cloud-based platforms such as Google Drive. Google Drive provides various features that support modern administrative management, including online document storage, structured file organization, real-time sharing, collaborative editing, and data accessibility across different devices (Abboushi et al., 2022; Seixas Pereira et al., 2024). These features enable institutions to improve efficiency, security, and flexibility in managing administrative information (Trofymchuk, Nesterenko & Netesin, 2022). Furthermore, Google Drive does not require complex infrastructure or high operational costs, making it suitable for educational institutions with limited technological resources.

Despite its potential benefits, the implementation of digital platforms within Islamic boarding school environments still faces several challenges, particularly related to digital literacy and user readiness. Administrative staff who have been accustomed to manual systems may experience difficulties in adapting to new digital workflows (Poots et al., 2024). Limited understanding of cloud storage concepts, document management systems, file sharing mechanisms, and online collaboration features can become barriers to effective technology adoption. Therefore, technology implementation should not only focus on

providing digital tools but also involve capacity-building activities through structured training and practical assistance tailored to users' needs.

The Islamic Boarding School Bureau of Nurul Jadid Islamic Boarding School represents one of the administrative units with a strategic role in supporting institutional operations. The bureau is responsible for managing various administrative activities, including student data management, documentation, reporting, and internal information coordination. The complexity of these responsibilities requires an efficient and organized document management system. However, the continued reliance on conventional administrative practices indicates the need for improvement through digital transformation. Training on Google Drive utilization is therefore considered relevant as an initial step to strengthen administrative capacity and encourage more effective technology-based work practices.

Based on these conditions, this community service activity aims to provide practical training on the utilization of Google Drive for administrative staff at the Islamic Boarding School Bureau of Nurul Jadid Islamic Boarding School. The activity is designed not only to introduce technical skills, such as creating folders, uploading documents, managing files, and sharing information digitally, but also to encourage a shift in administrative work culture toward a more efficient, collaborative, and organized system. Through this program, it is expected that bureau staff will gain improved digital competencies and be able to apply Google Drive as a practical solution for daily administrative activities. Furthermore, this activity represents an initial effort toward broader digital transformation within Islamic boarding school-based educational institutions.

## METHOD

This community service activity was implemented using a participatory training approach designed based on the administrative needs of the Islamic Boarding School Bureau of Nurul Jadid Islamic Boarding School. The method emphasized collaboration between the service team and the partner institution through several stages, including preliminary observation, needs identification, training preparation, implementation, practical simulation, and evaluation. The initial stage was conducted to understand the existing administrative management conditions, particularly regarding document storage, data organization, and the utilization of digital platforms. Based on the observation results, it was identified that several administrative processes were still conducted using conventional methods, resulting in challenges related to document accessibility, file organization, and information sharing efficiency.

Based on the identified needs, the training materials were developed with a practical and applicable approach to ensure that participants could easily understand and implement the knowledge gained. The training focused on the utilization of Google Drive as a digital

document management platform, including creating and organizing folders, uploading and managing files, sharing documents, managing access permissions, and utilizing collaborative features. The material design considered the participants' technological background, so the learning process was structured gradually through explanations, demonstrations, and direct practice. This approach aimed to reduce technological barriers and encourage participants to adopt digital administrative practices in their daily work activities.

The implementation of the training was carried out directly at the Nurul Jadid Islamic Boarding School environment involving administrative staff from the Islamic Boarding School Bureau. The learning process combined presentations, demonstrations, interactive discussions, and hands-on exercises using participants' own devices and Google accounts. After receiving basic explanations, participants were guided to conduct simulations of digital administrative management by creating folder structures, uploading institutional documents, organizing digital archives, and practicing document-sharing mechanisms. Through this simulation process, participants were able to experience directly how Google Drive could support more effective, organized, and collaborative administrative activities.

The evaluation stage was conducted to measure the effectiveness of the training and assess participants' understanding of Google Drive utilization. Evaluation was carried out through direct observation during practical sessions and feedback collection through discussions and evaluation forms. The observation focused on participants' ability to perform basic operations, such as managing folders, uploading documents, sharing files, and adjusting access settings. Meanwhile, participant feedback was used to identify perceived benefits, difficulties encountered during implementation, and suggestions for future digital literacy programs. The evaluation results became an important reference for assessing the achievement of activity objectives and improving similar community service activities.

The participation of the Islamic Boarding School Bureau of Nurul Jadid Islamic Boarding School played an important role in supporting the success of this activity. The partner was actively involved from the preparation stage by providing information regarding administrative challenges, supporting training facilities, coordinating participants, and ensuring the availability of necessary equipment. During the training, participants demonstrated active involvement through discussions, practice sessions, and experience sharing related to administrative management issues. After the activity, the partner also provided feedback regarding the potential continuation of digital transformation through the utilization of other Google Workspace applications. This collaborative participation indicates that the activity was not merely a knowledge transfer

process but a joint effort to strengthen administrative capacity and encourage digital transformation within the Islamic boarding school environment.

## RESULT AND DISCUSSION

### 1. Partner Conditions and Initial Needs Analysis

The initial stage of this community service activity focused on identifying the administrative conditions and digital readiness of the Islamic Boarding School Bureau of Nurul Jadid Islamic Boarding School. The identification process was conducted through direct discussions with administrative staff and a preliminary survey to understand their current practices in managing documents, utilizing digital platforms, and facing challenges in daily administrative activities.

The initial observation indicated that administrative activities were still predominantly conducted using conventional approaches. Several documents were stored separately on personal devices or managed through manual methods, which could potentially create difficulties in accessing files, updating documents, and sharing information among staff members. These conditions showed that the bureau required a more structured digital document management system that was simple, accessible, and appropriate to the technological capacity of the staff.

To obtain a clearer understanding of participants' technological readiness, the community service team distributed a preliminary survey using Google Forms to 10 staff members of the Islamic Boarding School Bureau. The survey aimed to identify participants' previous experience with digital platforms, their familiarity with Google Drive features, internet accessibility conditions, and their expectations toward digital administration training.

The survey results showed that participants generally had access to digital devices and basic digital services, as indicated by 100% of respondents having active Gmail accounts. However, their utilization of cloud-based platforms for institutional administration was still limited. Most participants had only used Google Drive for personal file storage (64%), while 76% had never shared documents using Google Drive links. Furthermore, 81% of respondents had never used Google Docs, Sheets, or Slides for collaborative administrative activities.

**Table 1. Participant Technology Readiness and Interest Survey Results**

| Survey Indicator                                    | Most Popular Response               | Percentage |
|-----------------------------------------------------|-------------------------------------|------------|
| Experience using Google Drive                       | Used only for personal file uploads | 64%        |
| Experience sharing files through Google Drive links | Never used                          | 76%        |
| Experience using Google Docs/Sheets/Slides          | Never used                          | 81%        |
| Ownership of active Gmail account                   | Yes                                 | 100%       |

|                                                               |                        |     |
|---------------------------------------------------------------|------------------------|-----|
| Internet access during working activities                     | Available but unstable | 67% |
| Interest in participating in digital file management training | Very interested        | 94% |

The survey findings indicate that the main challenge faced by the partner was not the absence of technological access, but rather the limited ability to utilize digital platforms strategically for administrative purposes. The high level of participant interest (94%) also demonstrated that administrative staff had a strong willingness to improve their digital competencies. Therefore, the training program was designed based on these needs, focusing on practical Google Drive utilization to support more organized, efficient, and collaborative administrative management.

## 2. Implementation of Google Drive Training Activities

Based on the identified conditions, the training activity was designed using a practical and participatory approach. The main principle of the activity was that participants should not only understand the concept of digital document management but also directly experience how Google Drive could be applied in their daily administrative work.

The training was conducted over two days, June 1–2, 2025, at the Meeting Room of the Islamic Boarding School Bureau of Nurul Jadid Islamic Boarding School. The activity involved 10 participants consisting of administrative staff responsible for various institutional tasks. The training process was divided into several learning sessions, beginning with an introduction to cloud storage concepts, followed by technical practices and administrative simulations.

The first session focused on introducing Google Drive and explaining its relevance to administrative management. Participants were introduced to the differences between conventional document storage and cloud-based systems. The facilitator explained how Google Drive could support centralized storage, improve accessibility, and reduce dependency on individual devices.

The second session focused on creating structured digital archives. Participants practiced creating folders based on administrative categories, uploading documents, organizing files, and applying systematic naming conventions. This session was directly connected with participants' daily responsibilities because the examples used were based on institutional documents.

During this session, participants began to understand the importance of organized digital archives. Several participants realized that their previous storage methods, such as saving files randomly on personal devices or relying on chat applications, created difficulties when documents needed to be accessed again.



**Figure 2. Participants Practicing Folder Creation and Document Organization in Google Drive**

The second day focused on collaboration features, including document sharing, access permission management, and Google Docs collaboration. Participants practiced creating shared documents and assigning different access levels, such as viewer, commenter, and editor.

The collaboration simulation received positive responses because participants experienced directly how several people could work on the same document without repeatedly sending revised files. This activity helped participants understand that digital transformation is not only about replacing physical documents but also about improving communication and teamwork.



**Figure 3. Google Docs Collaboration Simulation Between Participants**

### 3. Improvement of Participants' Digital Competence

The effectiveness of the training was measured through pre-test and post-test evaluations. The evaluation focused on participants' understanding of essential Google Drive functions required to support administrative activities.

The results showed a significant improvement after the training. Before the activity, participants had limited understanding of cloud-based document management. However, after participating in demonstrations, simulations, and guided practice, participants demonstrated improved abilities in navigating Google Drive, organizing folders, uploading documents, sharing files, and collaborating online.

The largest improvement occurred in collaborative document management. Before the training, participants were generally unfamiliar with Google Docs collaboration features because administrative communication was mostly conducted through sending separate files. After the training, participants understood that collaborative editing could simplify reporting processes and reduce document duplication.

The improvement also indicates that hands-on training was an appropriate method for participants with different levels of digital literacy (Miller et al., 2024; Yuniarti et al., 2024). Instead of only receiving explanations, participants were given opportunities to practice directly with guidance from facilitators. This approach reduced technological anxiety and increased confidence in using digital tools.

**Table 1. Improvement of Participants' Understanding Before and After Training**

| Competency                | Pre-Test | Post-Test |
|---------------------------|----------|-----------|
| Google Drive navigation   | 42%      | 95%       |
| Folder organization       | 38%      | 92%       |
| File uploading            | 50%      | 100%      |
| File sharing permissions  | 27%      | 89%       |
| Google Docs collaboration | 19%      | 87%       |

The improvement data demonstrates that the training successfully increased participants' digital administrative competence. The results also confirm that simple digital platforms can provide meaningful benefits when accompanied by appropriate training and mentoring.

### 4. Changes in Administrative Management Practices

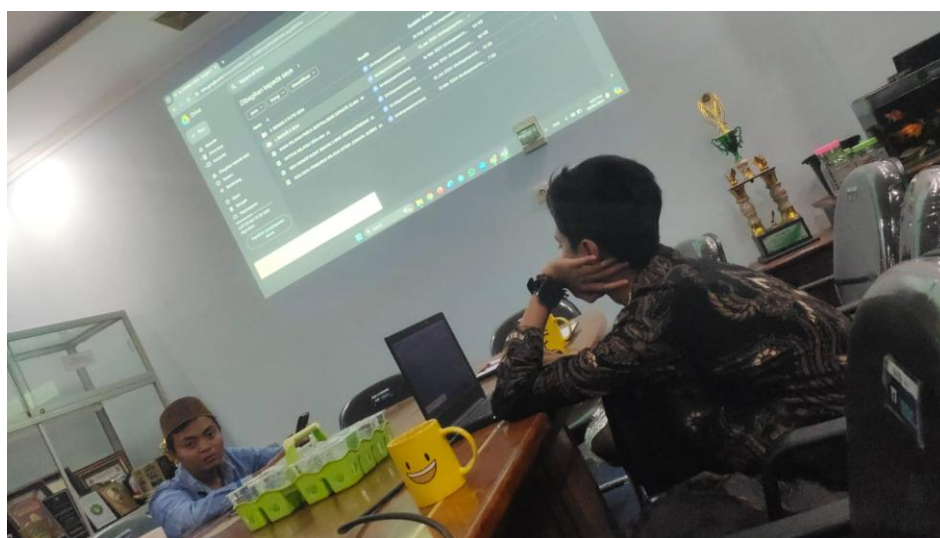
Beyond increasing technical competence, the training also encouraged changes in administrative work patterns. Before the activity, document management was mainly based on physical archives and individual storage devices. After the training,

participants began to understand the importance of centralized digital archives that allow easier access and collaboration.

One important change was the participants' awareness of structured folder management (Cwala et al., 2024; Kiu et al., 2024). Previously, documents were often stored based on individual habits. Through the training, participants learned to organize files based on institutional structures, years, document categories, and administrative functions.

Another important change was the improvement of document-sharing practices. Previously, staff members frequently transferred documents through WhatsApp or flash drives. After learning Google Drive features, participants understood that sharing links with controlled permissions could provide a safer and more efficient alternative (Tempestini et al., 2024).

The implementation of Google Drive also encouraged a more collaborative working culture. Administrative staff became more aware that digital systems can support teamwork by reducing dependence on individual devices. This change represents an initial step toward broader digital governance within Islamic boarding school management.



**Figure 4. Participants Applying Digital Archive Structure After Training**

## **5. Participant Responses, Challenges, and Sustainability Program**

The evaluation process showed that participants responded positively to the training activity. Most participants considered the materials relevant to their daily administrative

responsibilities because the examples and simulations were directly related to institutional document management.

Several participants stated that the most useful knowledge gained was the ability to organize documents systematically and share files more efficiently. Previously, they relied heavily on sending attachments through messaging applications, which often caused difficulties in finding previous files. After the training, participants understood that Google Drive could provide a more organized and secure solution.

Despite positive outcomes, several challenges were identified during implementation (Damschroder et al., 2022; Proctor et al., 2023). The first challenge was differences in participants' digital literacy levels. Some participants required additional assistance when accessing Google Drive features. The second challenge was internet stability during practice sessions, which occasionally affected the uploading and synchronization process.

To overcome these challenges, facilitators provided direct mentoring during practice sessions and prepared alternative explanations when technical problems occurred. This approach ensured that all participants could follow the training process according to their respective abilities (Enoch et al., 2023).

For sustainability, participants expressed interest in continuing digital administration training using other Google Workspace applications, such as Google Forms, Google Sheets, and Google Calendar (Fauziah & Nugroho, 2024). Therefore, this activity can be considered an initial stage toward broader digital transformation within the Islamic Boarding School Bureau of Nurul Jadid Islamic Boarding School.

Overall, the results demonstrate that the utilization of Google Drive through structured training can improve administrative efficiency, strengthen digital competence, and encourage a more collaborative work culture. The activity also shows that Islamic boarding schools, while maintaining their traditional educational values, have strong potential to adopt digital technologies as part of institutional development.

## CONCLUSION

The community service activity entitled *"Training on Utilizing Google Drive to Improve Administrative Governance Capacity for the Nurul Jadid Islamic Boarding School Bureau"* was successfully implemented as an effort to strengthen the digital administrative capacity of bureau staff. The activity addressed the need for improving document management practices through the utilization of cloud-based technology. Through a practical training approach consisting of material delivery, hands-on practice, simulation, and evaluation, participants gained improved skills in managing digital documents, organizing files, sharing documents, and utilizing collaboration features in Google Drive. The results showed that the training contributed positively to improving participants' understanding

of digital administrative management and encouraged a transition from conventional document management toward a more organized, efficient, and collaborative system.

Despite several challenges, such as differences in digital literacy levels and internet connectivity limitations, the high enthusiasm and active participation of participants supported the successful implementation of the program. This activity demonstrates that simple and accessible digital platforms such as Google Drive can provide meaningful benefits in strengthening administrative governance within Islamic boarding school institutions. For sustainability, further training and mentoring are recommended to introduce additional Google Workspace applications, such as Google Forms, Google Sheets, and Google Calendar, along with institutional support through digital work procedures and adequate infrastructure. Through continuous development, digital transformation can become a strategic step in creating more adaptive, effective, and sustainable administrative management while maintaining the values and characteristics of Islamic boarding schools.

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