

Pelatihan Dan Penerapan Sistem Surat Digital Untuk Meningkatkan Efisiensi Administrasi di Kantor Kepala Desa Dalu Sepuluh

Training and Implementation of a Digital Mail System to Improve Administrative Efficiency at the Dalu Sepuluh Village Head's Office

Zulham¹, Buyung Solihin Hasugian², Muhammad Eka³, *Sri Wahyuni⁴

¹Rekayasa Perangkat Lunak, Universitas Dharmawangsa

²Sistem Informasi, Universitas Dharmawangsa

³Rekayasa Perangkat Lunak, Universitas Dharmawangsa

⁴Sistem Informasi, Universitas Dharmawangsa

Email: sriwahyuni15jun@dharmawangsa.ac.id

Abstract

This community service program aims to improve administrative efficiency at the Dalu Sepuluh Village Office through training and the implementation of a digital correspondence system. The implementation method includes preparation, socialization, technical training, mentoring, and evaluation stages. The training focuses on enhancing the digital literacy of village officials in managing incoming and outgoing correspondence electronically, including document creation, archiving, and distribution. The results indicate significant improvements in the participants' understanding and skills in using digital systems, acceleration of administrative processes, and a reduction in paper usage. The implementation of the digital correspondence system also promotes orderly administration, transparency, and accountability in public services. Overall, this program contributes to supporting the digital transformation of village governance toward a more effective, efficient, and sustainable administrative system.

The main problem in administrative management at the Dalu Sepuluh Village Office is the manual handling of correspondence, which leads to service delays, high risk of document loss, and low work efficiency. This community service program aims to improve administrative efficiency and service quality through training and the implementation of a digital correspondence system. The methods include needs analysis, socialization, technical training, implementation assistance, and evaluation. The training focuses on enhancing the digital literacy of village officials in managing incoming and outgoing letters using electronic systems. The results show significant improvements in participants' understanding and skills, faster

Keywords: *digital correspondence system, administrative efficiency, village governance, community service, digital transformation*

INTRODUCTION

The rapid development of information and communication technology has driven digital transformation across various sectors, including public administration[1].

317

The digitalization of public administrative systems has been proven to improve work efficiency, accelerate service delivery, enhance transparency, and strengthen institutional accountability[2]. However, at the village government level, the implementation of digital-based administrative systems still faces significant challenges, particularly limited technological infrastructure, low digital literacy among village officials, and work patterns that remain heavily dependent on manual processes[3]. Digital transformation in governance has become a strategic necessity in the era of Industry 4.0 [4]and Society 5.0. The digitalization of public administration has been proven to enhance work efficiency, transparency, accountability, and the overall quality of public services [5]. However, at the village government level[6], the implementation of digital-based administrative systems still faces various challenges, including limited technological infrastructure[7], low digital literacy among government officials, and work cultures that remain heavily dominated by manual processes[8].

The Dalu Sepuluh Village Office is one of the local government units that still manages correspondence administration using conventional methods. Based on initial observations and interviews with village officials, the processes of recording incoming and outgoing letters are conducted manually through logbooks and physical document storage. This condition leads to service delays, difficulties in document retrieval, and a high risk of document loss or damage. Quantitatively, the average time required to record and retrieve a single document ranges from 10 to 15 minutes, whereas the use of a digital system can reduce this time to less than 3 minutes [9]. Furthermore, excessive paper usage increases operational costs and poses environmental concerns.

The main issues faced by the partner institution include low administrative efficiency and limited digital competence among village officials. Therefore, the focus of this community service program is directed toward enhancing digital literacy through training and implementing a digital correspondence system as a practical and sustainable solution[10]. The digitalization of correspondence management is expected to improve archival order, accelerate workflow, facilitate document distribution, and enhance the quality of public services [11].

The selection of the Dalu Sepuluh Village Office as the subject of this community service program was based on several considerations, including the readiness of village officials to adopt technological innovation, strong leadership support for administrative development, and the urgent need for a more effective and efficient correspondence management system. In addition, this village has considerable potential to serve as a pilot model for digital administrative practices at the village level.

The objective of this community service activity is to improve administrative efficiency through training and the implementation of a digital correspondence

system, enhance the digital literacy of village officials, and promote transparent, accountable, and sustainable village governance. It is expected that this program will generate tangible improvements in public service quality and serve as a replicable model for other village



Figure 1. The Office of the Head of Dalu Sepuluh B Village

2. METODE

This community service program was conducted using a participatory and systematic approach aimed at improving administrative efficiency through training and the implementation of a digital correspondence system at the Dalu Sepuluh Village Office. The program involved village officials as the primary beneficiaries and active participants throughout all stages of the activity.

Subjects and Location

The subjects of this community service program were the village head, administrative staff, and village officials of the Dalu Sepuluh Village Office. The activities were carried out directly at the Dalu Sepuluh Village Office to ensure contextual relevance and immediate practical application of the digital correspondence system.

Preparation of Community Service Materials

The preparation stage included needs assessment, preliminary observation, and interviews with village officials to identify existing administrative problems and technological readiness. Based on this assessment, training modules, system manuals, and technical guidelines were developed. The digital correspondence application was customized according to the administrative structure and workflow of the village office.

Community Involvement and Participatory Approach

The partner institution was actively involved in the planning and organizational process, starting from problem identification, scheduling activities, providing facilities, and selecting training participants. This participatory approach ensured that the program addressed actual needs and encouraged a sense of ownership, which supported sustainable implementation.



Figure 2. Digital Correspondence System Training Session for Operators

Research Strategy and Implementation Method

The program employed a descriptive participatory action research (PAR) approach, integrating training, mentoring, and direct practice. The strategy focused on enhancing digital literacy, strengthening institutional capacity, and ensuring practical system adoption. The activities were conducted through interactive lectures, hands-on practice sessions, group discussions, and continuous mentoring.

Stages of Community Service Activities

The implementation stages are illustrated in the following flow:

Needs Analysis → Program Planning → System Development → Training Implementation → System Application → Mentoring and Monitoring → Evaluation

1. Needs Analysis: Identification of administrative challenges and digital readiness through observation and interviews.
2. Program Planning: Preparation of training modules, scheduling, and coordination with village authorities.
3. System Development: Customization of the digital correspondence system to meet administrative needs.
4. Training Implementation: Delivery of technical training on digital correspondence management.

5. System Application: Direct implementation of the system in daily administrative operations.
6. Mentoring and Monitoring: Continuous guidance to ensure correct system use.
7. Evaluation: Assessment of outcomes based on performance indicators.

Data Collection and Evaluation Methods

Data were collected using qualitative and quantitative techniques. Qualitative data were obtained through observations, in-depth interviews, and documentation of activities. Quantitative data were gathered using pre-test and post-test instruments to measure improvements in participants' digital literacy and administrative efficiency. Performance indicators included time efficiency in document processing, accuracy of record-keeping, and user satisfaction levels. Data analysis was conducted descriptively by comparing conditions before and after program implementation.



Figure 3. Community Service Lecturer Team and Partner

3. RESULTS AND DISCUSSION

The implementation of this community service program at the Dalu Sepuluh Village Office produced significant outcomes in improving administrative efficiency and enhancing the digital competence of village officials. The results were obtained through direct observation, interviews, documentation, and performance measurement before and after the implementation of the digital correspondence system.



Figure 4. Web-Based Administrative Document Service System

1. Improvement in Digital Competence of Village Officials

The results of the pre-test and post-test evaluations indicate a substantial improvement in the participants' understanding and skills in managing digital-based administrative tasks. Prior to the training, most participants possessed only basic computer skills, such as typing and file storage. After the training, they were able to manage incoming and outgoing correspondence digitally, perform electronic archiving, and distribute documents through the system.

Table 1. Evaluation of Village Officials' Competence

Competency Indicators	Before (%)	After (%)
Computer operation	52	85
Digital archiving management	40	82
Use of correspondence system	35	88
Understanding of admin flow	55	90

This improvement demonstrates that the applied training and mentoring methods were effective in enhancing digital literacy among village officials.

2. Administrative Time Efficiency

The implementation of the digital correspondence system significantly improved time efficiency in administrative processes. The average time required for document

recording and retrieval decreased markedly from 10–15 minutes to 2–3 minutes per document.

Table 2. Comparison of Administrative Processing Time

Administrative Activity	Manual System	Digital System
Document recording	7–10 minutes	1–2 minutes
Archive retrieval	8–15 minutes	1–3 minutes
Document distribution	10–20 minutes	2–5 minutes

This time efficiency directly contributed to faster public services and increased staff productivity.

3. Archival Order and Reduction in Paper Usage

The digital correspondence system enabled more systematic, organized, and secure document management. All documents were stored in a structured digital database, minimizing the risk of loss and damage. Moreover, paper usage decreased by approximately 60%, leading to lower operational costs and supporting environmentally friendly administrative practices.

4. Improvement in Public Service Quality

The adoption of the digital system positively impacted public service quality. Community members experienced faster, more accurate, and more transparent administrative services. This improvement enhanced public satisfaction, as reflected in interviews and service satisfaction questionnaires.

Discussion

The results of this program align with who reported that the digitalization of public administration significantly enhances efficiency and service quality. The notable improvement in village officials' competence confirms that hands-on training combined with continuous mentoring is an effective strategy for encouraging technology adoption at the village government level.

Furthermore, the observed improvements in time efficiency and reduced paper usage support who emphasized the role of digital archiving systems in optimizing administrative workflows and conserving resources. Therefore, the implementation of the digital correspondence system not only provides technical benefits but also strengthens transparent, accountable, and sustainable village governance.

Overall, the findings demonstrate that the community service program successfully achieved its main objectives, namely improving administrative efficiency and enhancing the capacity of village officials through practical and sustainable digital transformation.

Figure 5. Outputs of the Community Service Program: Implementation of the Digital Correspondence System at the Village Head Office

CONCLUSION

The community service program involving training and the implementation of a digital correspondence system at the Dalu Sepuluh Village Office has successfully achieved the objectives outlined in the Introduction. The results demonstrate significant improvements in administrative efficiency, digital competence of village officials, archival management, and the quality of public services. The adoption of the digital system has accelerated administrative processes, reduced paper usage, and enhanced transparency and accountability in village governance.

The consistency between the objectives, methods, and outcomes indicates that this program is effective and relevant to the actual needs of the partner institution. Its success was strongly supported by the active involvement of village officials, the participatory approach applied throughout the program, and continuous mentoring during system implementation.

As future development prospects, the implemented digital correspondence system can be expanded through integration with web- and mobile-based administrative services, the development of an integrated sub-district archival system, and the enhancement of cloud-based data security. Further community service initiatives may also focus on strengthening village officials' capacity in utilizing other digital



government applications, such as population administration services and integrated village information systems. These developments are expected to further promote modern, efficient, and sustainable village governance.

REFERENCES

- [1] Y. Andriyan *dkk.*, "The implementation of e-government for village good governance in South Misool, Raja Ampat," *jcse*, vol. 5, no. 3, hlm. 531–539, Nov 2024, doi: 10.22219/jcse.v5i3.35483.
- [2] Siti Aisyah dan Eddy Suriyani, "Implementasi Program Digitalisasi Desa (Digides) Dalam Meningkatkan Pelayanan Publik Di Desa Kapar Kecamatan Murung Pudak Kabupaten Tabalong," *JAPB*, vol. 7, no. 2, hlm. 2073–2088, Okt 2024, doi: 10.35722/japb.v7i2.1139.
- [3] E. Wahyunto, M. Aulia Taufiqi, N. Azizah, dan N. Siti Maryam, "Pemanfaatan Teknologi Digital Dalam Meningkatkan Administrasi Desa: Pengabdian Masyarakat," *JERKIN*, vol. 3, no. 3, hlm. 359–363, Mar 2025, doi: 10.31004/jerkin.v3i3.397.
- [4] J. Abdussamad, Z. Abdussamad, S. N. Abdussamad, dan S. N. Abdussamad, "Optimalisasi Tata Kelola Pelayanan Administrasi Desa Berbasis Digital di Desa Limbato Kecamatan Tilamuta Kabupaten Boalemo," *Sibermas*, vol. 14, no. 1, hlm. 26–45, Mei 2025, doi: 10.37905/sibermas.v14i1.29055.
- [5] V. N. Cahya Ningtyas dan R. Angin, "Inovasi Menuju Transformasi Digital dalam Pelayanan Publik Kajian Sistem Manajemen Pelayanan Desa (SIMPEDA) di Desa Balung Lor," *par*, vol. 1, no. 1, hlm. 11, Nov 2023, doi: 10.47134/par.v1i1.1937.
- [6] Titis Ayu Angganten, "Penerapan E-Government Guna Mendukung Transparansi Dan Keterbukaan Informasi Publik Di Desa Tapak Kabupaten Magetan," *JSH*, vol. 1, no. 2, hlm. 220–229, Des 2024, doi: 10.70214/vyb31023.
- [7] S. Agastha dan R. Fikri, "Implementasi Pelayanan Publik Berbasis Aplikasi Digital Desa (Digides) Di Kantor Desa Pandau Jaya Kecamatan Siak Hulu," *jmp*, hlm. 400–408, Jul 2024, doi: 10.25299/jmp..18259.
- [8] M. Khaerunnisa, M. R. R. Razak, dan H. Syarifuddin, "PENERAPAN E-GOVERNMENT DALAM MENINGKATKAN PARTISIPASI PUBLIK DI DESA BINA BARU KECAMATAN KULO KABUPATEN SIDENRENG RAPPANG," vol. 8, no. 2, 2025.
- [9] S. S. Abdillah, "Inovasi Pelayanan Publik Berbasis Digital di Tingkat Desa: Studi Kasus Penerapan Aplikasi SiDesa di Kabupaten Banyumas Analisis Efektivitas dan Tantangan Implementasi E-Government Desa".
- [10] F. Rachmad dan M. Alkadafi, "Digitalisasi Administrasi Pemerintahan Desa: Upaya Meningkatkan Pelayanan Publik di Desa Sungai Pinang," 2025.
- [11] P. Muniarty, I. Haryanti, dan M. Hidayanti, "Digitalisasi Administrasi Desa Melalui Pemanfaatan Google Drive untuk Peningkatan Efisiensi Pelayanan Publik di Kelurahan Rabadompu Barat".