

## IMPROVING DIGITAL LITERACY OF HUMAN RESOURCES THROUGH THE UTILIZATION OF VILLAGE INFORMATION SYSTEMS IN WANAGIRI VILLAGE, PANDEGLANG

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### ABSTRACT

This community service activity aims to improve the digital literacy of Wanagiri Village devices through the web-based Recapitulation Reporting Information System (SILAMPID). This activity is carried out by developing a system and providing workshops. The workshop given was about digital literacy, *good governance*, and SILAMPID. The target users of this application are the Wanagiri village apparatus and the head of the RT. The method used in this activity is needs analysis according to partner problems, application design, and workshop and application evaluation. The application evaluation uses Blackbox while the evaluation of workshop activities is based on the provision of pre-tests given before the activity and post-tests given after the workshop activities. Assessment of the SILAMPID system development resulted in all modules or units running according to expectations. The evaluation of the workshop activities resulted in 75% of the participants who attended increasing their knowledge of the importance of *Good Governance*.

**Keywords:** digital, literacy, village, information, system

### INTRODUCTION

Wanagiri Village is a village located in Saketi District, Pandeglang. Based on data from the Central Statistics Agency (BPS) of Pandeglang Regency in 2020, Wanagiri Village is situated on a slope area, has 4 Neighborhood Units (RW) and 11 Neighborhood Units (RT) with a population of 1052 (Badan Pusat Statistik, 2021).

Wanagiri Village is a self-help village, which is a village that is still traditional and still tends to be isolated from life outside the town, with characteristics: the livelihood of the residents is very dependent on nature, meeting their own needs, the village administration is not good, the village institutions are not functioning, education and health are still low, access to the village is very difficult, still holding the customs of obediently. (Zainudin, 2016).

Wanagiri Village is led by the Village Head (Kades) assisted by the Village Secretary (Sekdes) and several Heads of Affairs (Kaur) who work in 1 Village Office. At the Village Office, there is 1 computer that is used together for the administration of the village office. The number of employees in the village head's office is 15 people with 1 person with the status of Civil Servant (PNS) and 14 with the status of volunteers. The level of education of employees at the village office is 4 graduates of elementary/junior high school, 8 graduates of high school, and 2 graduates of Higher Education.

In the 2020-2024 National Medium-Term Development Plan (RPJMN) to carry out 9 (nine) Presidential Missions called the Second Nawacita, there is an agenda to develop the region to reduce inequality and ensure equity, mental revolution, and cultural development, strengthen infrastructure to support economic activities and encourage equitable distribution of national development, strengthen Polhukhankam stability and transformation of public services. For this agenda to be implemented, it is necessary to strengthen Human Resources (HR) and Science and Technology (Science and Technology) based on regional excellence; strengthening the culture of literacy, innovation, and creativity; building and utilizing ICT infrastructure for digital transformation; and bureaucratic institutional reform for quality public services. (Peraturan Presiden Republik Indonesia Nomor 18 Tahun 2020 Tentang Rencana Pembangunan Jangka Menengah Nasional, 2020)

Under Law of the Republic of Indonesia Number 6 of 2014 concerning Villages, it is stated in article 86 that villages have the right to access information through the village information system so that they can provide quality services. (Undang-Undang Republik Indonesia Nomor 6 Tahun 2014 Tentang Desa, 2014).

The services provided by the Wanagiri Village Office are still carried out manually. The services available at the Wanagiri Village Office are public, population services, marriage services, and land services. Public services such as

(1) Certificate of Incapacity; (2) Certificate of Extremely Poor Household; (3) Parents' Income Certificate; (4) Application for Party Crowd Permit; (5) SKCK Cover Letter; (6) Certificate of Heirs. Population services such as (1) Certificate of Domicile; (2) Certificate of Moving; (3) Birth Certificate; (4) Death certificate; and (5) Death Certificate. Marriage services such as (1) Introduction to Marriage; (2) Certificate of Marriage; (3) Certificate of never being married; (4) Certificate of Widow/Widow. Land services such as (1) Land Ownership Certificate; and (2) Certificate of Home Guarantee.

Currently, the quality of services provided by the Wanagiri Village Office is still lacking due to the lack of information technology knowledge from the village apparatus. The services provided by the Wanagiri Village Office sometimes take a long time and also residents do not know the procedure for submitting a letter, this is because the residents of Wanagiri Village do not know the standard operational procedures for the desired services. The services in question are public, population services, marriage services, and land services.

Of the number of employees in the Village Office, 14 people at the beginner level (Novice) are employees who are still lacking in information technology knowledge, 1 person at the competent level (Competent) is employees who already understand the context of information technology, while there are no employees who have a level of proficient, expert, and master knowledge.

Therefore, the Wanagiri Village Office needs an electronic-based village information system to provide quality services and provide information on the potential of the village owned by the village. The information system provided needs to be supported by digital literacy from Wanagiri Village office employees so that they can carry out the principles of good governance. Human resources are important in achieving the performance of a website. The application of the principle of *good governance* has a significant influence on improving the quality of services at the National Defense Agency (BPN) of the Pandeglang Regency. (Anggraeni et al., 2022). On the village information system website, human resources play the role of system managers, therefore training is needed to increase the use of the village information system website. (Apriyansyah et al., 2018).

## METHOD

This PKM activity uses the *Participatory Action Research* (PAR) method, the PAR method is a method whose approach aims at learning to overcome problems and meeting the practical needs of the community, the production of knowledge, and the process of socio-religious change. (Rahman A et al., 2024). The PKM Activity Cycle with PAR includes knowing (*to know*), understanding (*to understand*), planning (*to plan*), acting (*to act*), changing (*to change*)(Afandi et al., 2022).

Figure 13 Is an approach method to the implementation of the Community Partnership Program. The approach method is divided into 3 namely problems, solutions, and final conditions.

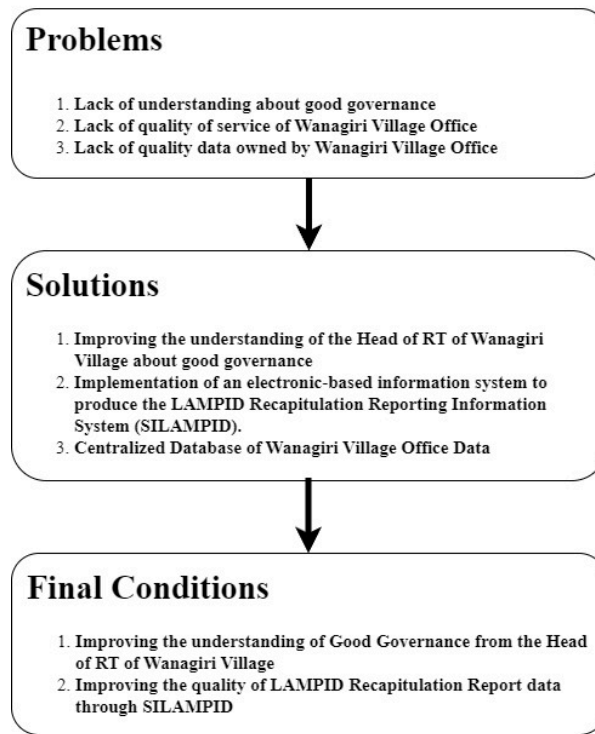


Figure 13. Methods of Approach to the Implementation of Community Partnership Programs

Table 1 Is the stage of community service activities consisting of activity coordination, SILAMPID development, SILAMPID Evaluation, Digital Literacy Workshop, and Workshop Activity Evaluation.

Table 1. Stages of Implementation of Activities

No	Stages	Output
1	Coordination of activities	a. Documents, data, business processes, and business rules from the village administration. b. Schedule of workshop and simulation activities c. Workshop and simulation participants
2	Development of Recapitulation Reporting Information System (SILAMPID)	Recapitulation Reporting Information System (SILAMPID)
3	Evaluation of SILAMPID	<i>Black Box Testing</i>
4	Digital Literacy Workshop for Wanagiri Village Office Employees dan Head of RT	a. Workshop on the Importance of <i>Good Governance</i> b. Digital Administration Workshop c. SILAMPID Simulation
5	Evaluation of the understanding of Digital Literacy of Wanagiri Village Office employees and Head of RT	Implementation of pre-test and post-test regarding <i>good governance</i> and digital administration

The stages of Table 1 Community service activities began with coordination which included data collection, scheduling for workshops, and SILAMPID simulations. The activity continued by developing SILAMPID in preparation for the workshop which was followed by SILAMPID Evaluation with Black Box Testing. Black Box testing is carried out to determine whether the functions, inputs, and outputs of the software are following the required specifications. The way to test is to run or execute a unit or model of the system, then observe whether the results of the unit match the desired process (Rahman A et al., 2024). The implementation of the village information system aims to make it easier for all units in the organization to convey information in an orderly, easy and reliable manner.

Technological developments in service activities have an impact on providing more effective and efficient services (Kurnianingsih et al., 2020). The village government also needs to manage the village apparatus as a form of autonomy over its transparent bureaucratic management (Erida et al., 2023). Furthermore, the implementation of the Workshop on Good Governance and SILAMPID with the target participant being the Chairman of the Wanagiri Village RT, Pandeglang. The evaluation of the success of the Good Governance Workshop activities was seen by providing Pre-Test and Post-Test questions.

**RESULTS AND DISCUSSION**

**Recapitulation Reporting Information System (SILAMPID)**

The activity began with the creation of a web-based Recapitulation Reporting Information System (SILAMPID) using the PHP framework and mysql database. SILAMPID will be used by village office employees and the Head of RT. In SILAMPID, there are facilities for address data management, citizen data management, family card data management, and management of domicile letters, death certificates, and birth certificates.

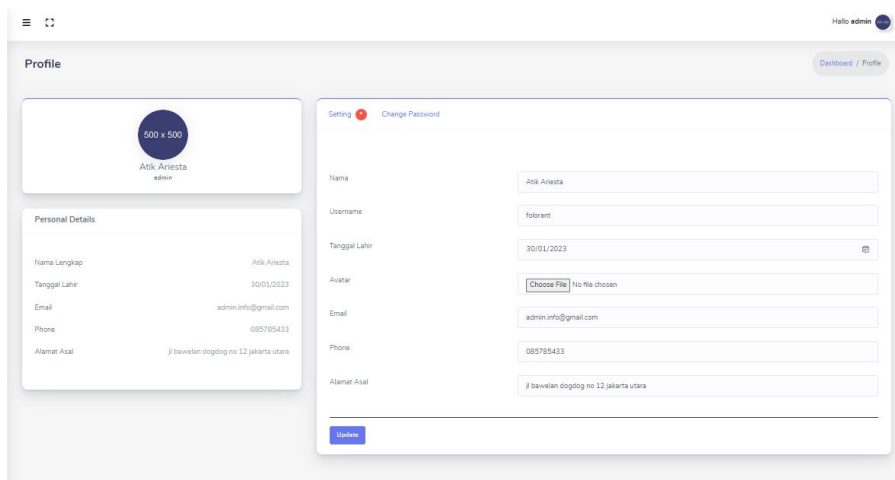


Figure 14. Website User Profile Screen

Figure 15 Is the display of the user's profile on the website. On the screen, users can change their name, e-mail, date of birth, avatar, phone, and origin address. The Profile page is intended for all users.

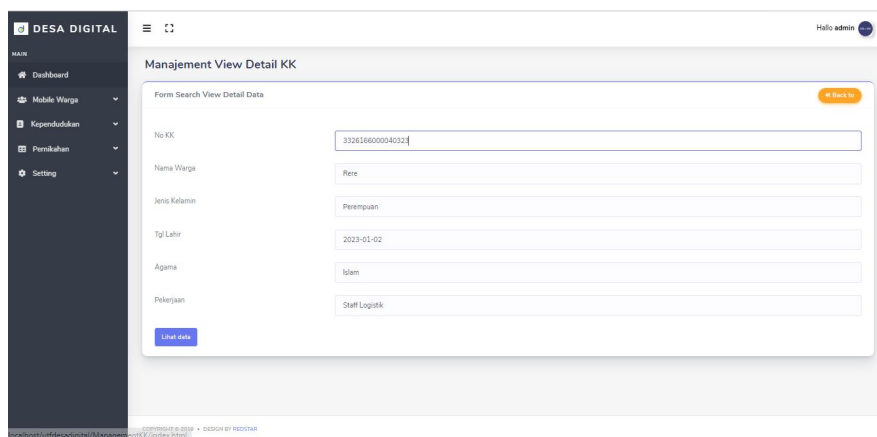


Figure 15. Management View Family Card (KK) Data Screen

Figure 16 Is a screen to view Family Card data that has been stored in the system. On the screen of Figure 6, the data of residents included in the Family Card is displayed.

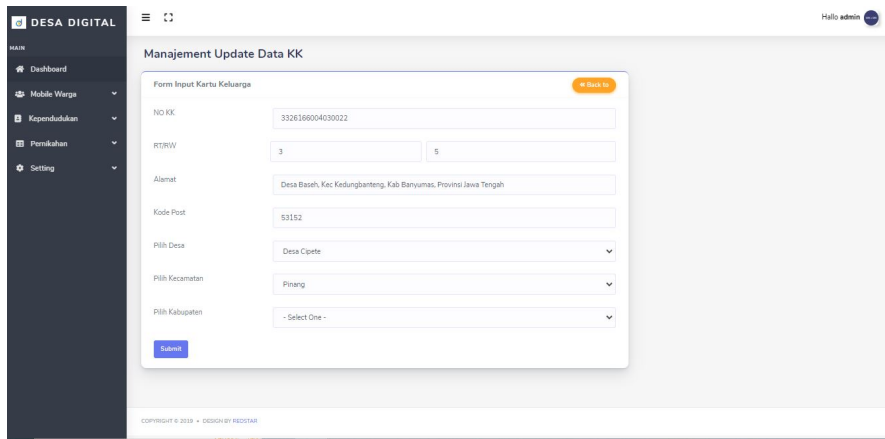


Figure 16. Family Card Data Update Management Screen

Figure 17 is a screen used to update Family Card data that has been saved before. The data that can be updated are RT/RW, Address, Postal Code, Village, District, and Regency.

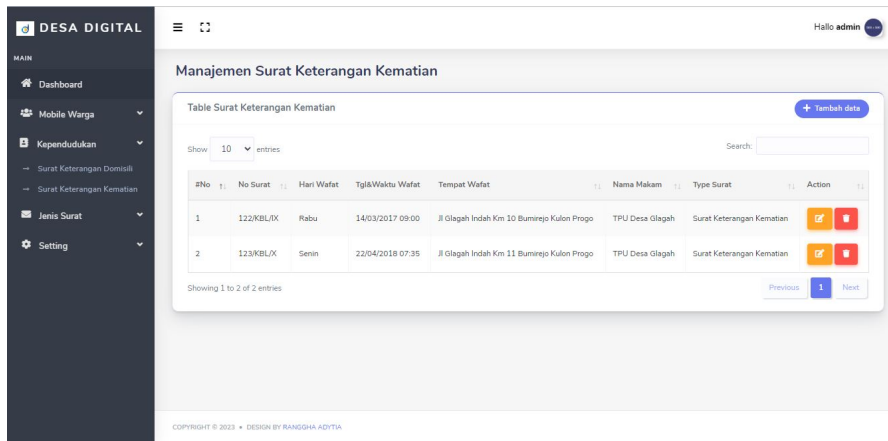


Figure 17. Death Certificate Management Screen

Figure 18 is the death certificate management screen used to view the death certificate request transactions that have been issued. On the screen, there is a table that can be used to change or delete death certificates that have been added. The table consists of Letter Number, Date of Death, Date and Time of Death, Place of Death, Name of Grave, Type of Letter, and Action.

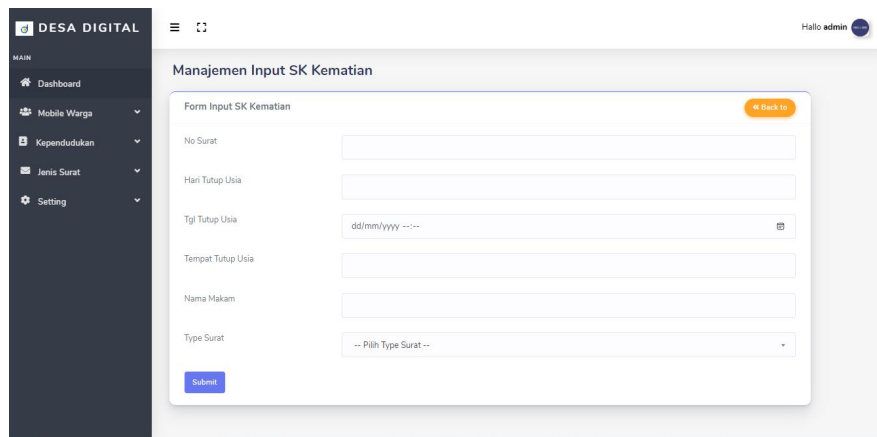


Figure 18. Death Certificate Input Management

**Evaluation of Recapitulation Reporting Information System (SILAMPID)**

The evaluation of the system is carried out using the Blackbox evaluation method to see if the system can work according to the expected function. The parts tested are logging into the system, setting village identity, adding village news, adding population administration data, and public service processes. The results of the Blackbox test can be seen in Table 2:

Table 2. Blackbox Test Results

Testing Activities	Expected Realization	Test Results	Conclusion
Log in to the System using username and password	Successfully log in to the system with the registered username and password	Can use the menus available on SILAMPID	Succeed
Complete the public service process	Successfully add public service transactions for domicile letters, death certificates, and birth certificates	Residents get a death certificate, domicile certificate, and birth certificate	Succeed

**Digital Village Literacy Workshop of Recapitulation Reporting Information System (SILAMPID)**

After the SILAMPID was made, the next step was a workshop on the importance of Digital Literacy for Village Office Employees and heads of RT. The workshop material was about the importance of understanding Good Governance, Digital Administration and Simulation from SILAMPID.

The workshop was held on Tuesday, January 31, 2023, at the Wanagiri Village Office, Saketi District. The implementation starts from 11.00 to 13.00. The workshop began with the provision of pre-test materials related to Good Governance material, then continued with a presentation by the PKM Team about the importance of Good Governance in government institutions. After the presentation, it was continued with a simulation of the SILAMPID that had been designed.

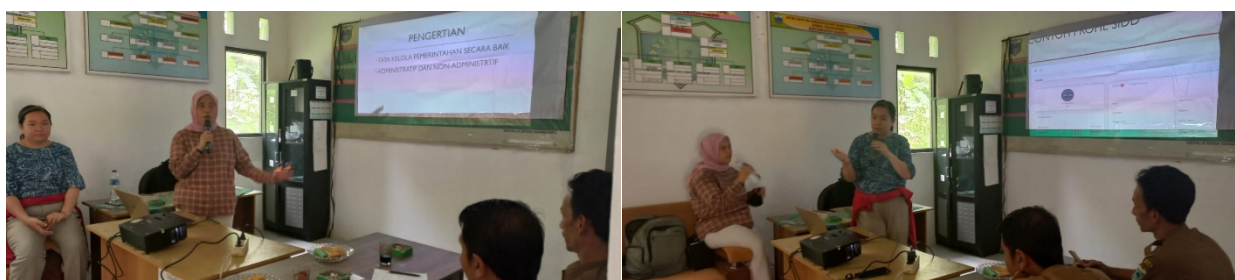


Figure 19. Pelaksanaan Kegiatan Workshop

**Evaluation of Digital Village Literacy Workshop**

The workshop ended with the implementation of a post test to see the receipt of the workshop material given. The results of the pretest and post-test can be seen in Table 3.

Table 3. Pre-Test and Post-Test Score

Participants	Pre-Test Score	Post-Test Score	Comparison of Pre-Test and Post-Test Scores
Participant 1	80	90	Increase
Participant 2	80	80	Remain
Participant 3	50	80	Increase
Participant 4	50	90	Increase
Participant 5	80	90	Increase
Participant 6	60	70	Increase
Participant 7	70	90	Increase
Participant 8	60	80	Increase
Participant 9	70	70	Remain
Participant 10	80	80	Remain
Participant 11	60	70	Increase
Participant 12	60	80	Increase
<b>Average</b>	<b>67</b>	<b>81</b>	<b>Increase</b>

Based on the results from Table 3, the average pre-test is 67 and the average post-test is 81. As many as 75% (9 participants) had an increased score after the implementation of the pre-test. As many as 25% (3 participants) with the score unchanged. Based on the results of the pre-test and post-test, it can be concluded that as many as 75% of the participants received workshop material on good governance.

**CONCLUSION**

Based on the results of the evaluation using the Blackbox Recapitulation Reporting Information System (SILAMPID), the function can run according to the test scenario. The login process can be run and the administration service is successfully added. The implementation of the workshop related to Digital Literacy on the implementation of Good Governance based on the results of the post-test and pre-test, 75% of participants received the workshop implementation materials given.

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