



Digitalization for family documents: Improving awareness of digital archives using Google Drive for facing industry 4.0

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ARTICLE INFO	ABSTRACT
<p>Article history Received: 2023-11-24 Revised: 2024-02-06 Accepted: 2024-03-27 Published: 2024-07-04</p> <p>Keywords Awareness of Digital Archives Digital Administration Literacy Digitalization for Family Documents Industry 4.0</p>	<p><i>It is necessary to understand digital-based family document management through training activities provided to the women's community in Sukodono-Sidoarjo. The aim of this program is to increase awareness of digital-based family document management in the era of technology 4.0 by providing lectures and practice of digital family archiving using Google Drive to mothers who have direct contact with managing documents in the family. This Community Service adopts experimental research with a quasi-experiment model, one group pretest-posttest design, where the level of success of the program can be seen from the increase in the training participants' abilities as shown by the results of the N-Gain Test calculation through Pretest and Posttest, affective scores, and psychomotor scores each participant. The results show that the digital-based family document management training agenda using Google Drive was effectively implemented by all participants based on the cognitive, affective and psychomotor aspects of this training. The effectiveness of this training has implications for increasing public awareness of digital archives for family documents owned by all participants, where this awareness is aimed at the use of digital public services in Sidoarjo. The use of the digital public service agenda promoted by the Government is an effort to increase SDGS 9 achievements in the indicator of the proportion of the population served by mobile broadband. Thus, the better prepared the community is to support digital public services, the higher the SDGS 9 score in a region/region.</i></p>
<p>Kata Kunci Digitalisasi untuk Dokumen Industri 4.0 Keluarga Kesadaran Arsip Digital Literasi Administrasi Digital</p>	<p>Digitalisasi untuk dokumen keluarga: Meningkatkan kesadaran akan arsip digital menggunakan Google Drive untuk menghadapi industri 4.0. Pemahaman mengenai pengelolaan dokumen keluarga berbasis digital melalui kegiatan pelatihan yang diberikan kepada komunitas perempuan di Sukodono-Sidoarjo perlu dilakukan. Tujuan program ini adalah untuk meningkatkan kesadaran pengelolaan dokumen keluarga berbasis digital di era teknologi 4.0 dengan cara memberikan ceramah dan praktik pengarsipan digital keluarga dengan menggunakan Google Drive kepada ibu-ibu yang bersentuhan langsung dengan pengaturan dokumen dalam keluarga. Pengabdian kepada Masyarakat ini mengadopsi penelitian eksperimen dengan model quasi experiment, one group pretest-posttest design, dimana tingkat keberhasilan program dapat dilihat dari peningkatan kemampuan peserta pelatihan yang ditunjukkan dari hasil perhitungan N-Gain Test melalui Pretest dan Posttest, skor afektif, dan skor psikomotorik masing-masing peserta. Hasil menunjukkan bahwa agenda pelatihan pengelolaan dokumen keluarga berbasis digital dengan menggunakan Google Drive efektif dilaksanakan oleh seluruh peserta berdasarkan nilai aspek kognitif, afektif, dan psikomotorik dalam pelatihan ini. Efektivitas pelatihan ini berimplikasi pada peningkatan kesadaran masyarakat akan arsip digital untuk dokumen keluarga yang dimiliki oleh seluruh peserta, dimana kesadaran tersebut ditujukan pada penggunaan layanan publik digital di Sidoarjo. Penggunaan agenda layanan publik digital yang digalakkan oleh Pemerintah merupakan upaya untuk meningkatkan capaian SDGS 9 pada indikator proporsi penduduk yang terlayani mobile broadband. Dengan demikian, semakin siap masyarakat dalam mendukung layanan publik digital, maka semakin tinggi pula skor SDGS 9 di suatu wilayah/daerah.</p> <p style="text-align: right;">Copyright © 2024, Hermanto, et al This is an open access article under the CC-BY-SA license</p> <div style="text-align: right;">  </div>
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INTRODUCTION

The development of information and communication technology has brought about many influences and changes in social life. The concept of life with unlimited interaction patterns can be reached by everyone with different time and place backgrounds and has been applied in various parts of the world. One application of the development of information and communication technology is very massive in the field of government, where the government has the responsibility to provide the best service to the community. The classic model of service carried out by face-to-face service is gradually changing into digital service (Berényi & Sasvári, 2018) that is in line with technological developments in government administration services. This change occurred very quickly when the COVID-19 pandemic entered Indonesia in 2020, causing a transformation in the work system (Yudhiasta & Mijiarto, 2023) in the government sector, namely from Work from Office (WFO) to Work from Home (WFH) (Arlinwibowo, Retnawati, Kartowagiran, & Kassymova, 2020). The policy was taken due to the very rapid spread of the Covid-19 pandemic, so special treatment is needed for the transmission prevention stage through the implementation of lockdown, self-quarantine, and social distancing (Khachfe, Chahrour, Sammouri, Salhab, Makki, and Fares, 2020) in social activities in the community. Lupia, Scabini, Simone, Perri, Rosa, and Corcione (2020); Martinez (2020); Yang, Park, Lee, and Lee (2019) added that due to the rapid spread, many sectors changed service patterns where previously they had to meet each other. Moreover, in response to this, the Indonesian government enforces the transformation of work mechanisms according to (Ministry of Administrative Reform and Bureaucratic Reform, 2021) to simplify the process of bureaucratic work systems that adhere to the principle of business processes from state civil apparatus employees by utilizing electronic or digital-based government systems.

Changes in the work system have had an impact on the acceleration of digital public service changes in Indonesia, with the hope of achieving 12 principles of optimal public service delivery based on (Indonesian Republic, 2009; Putri & Soesiantoro, 2023), namely: 1) public interest, 2) legal certainty, 3) equal rights, 4) balance of rights and obligations, 5) professionalism, 6) participatory, 7) equality of treatment/non-discrimination, 8) openness, 9) accountability, 10) facilities and special treatment for vulnerable groups, 11) timeliness, 12) speed, convenience, and affordability. Digital public services have several benefits and advantages such as increasing efficiency and effectiveness, accelerating the process of providing services to the public, more complete, accurate, fast information at a more efficient cost, a high level of transparency, the availability of an updated database, and supporting the creation of good governance. Digital public services can minimize administrative services in the form of direct face-to-face service, whereas administrative services in the industrial era of 4.0 (Widianingrum, Suranto, Hermanto, & Sholikah, 2020) require all people to have a good understanding of digitalization for all sectors of public services. Sudiran and Adityo (2023) add that the Industrial Revolution 4.0 has advantages and challenges for people's social lives, so it is necessary to understand the digital space sufficiently to maximize the posture of the digital era. Besides, not all people in Indonesia are ready for the digitalization of public services (Putri & Soesiantoro, 2023), where these services require that all document requirements have to be provided in digital format. Then, Minarso, Salim, Rahmi, and Sani (2023); Sinn, Kim, and Syn (2017) stated that this digitalization process requires a thorough personal understanding regarding the advantages obtained, especially for the administrative process of digital public services.

Furthermore, the implementation of digital public services in Indonesia has been implemented in almost all regions in Indonesia, where Sidoarjo Regency has 1) SiPraja system that is designed by an application based on Android and Website (Suparno, 2021), and 2) Plavon Disdukcapil for digital public service based on Website (Putri and Soesiantoro, 2023). Both services are used to support the implementation of the Public Service Mall in Sidoarjo. First, some of the digital services in SiPraja include services for managing population administration, licensing, and non-licensing (Rekasari and Fanida, 2022). Besides, the SiPraja website page has classified the types of services at each level according to the subject of the required document processing. Second, The digital service of Plavon Disdukcapil has the main objective of processing population documents (Putri and Soesiantoro, 2023), where some of the services include services for birth certificates, death certificates, marriage certificates, divorce certificates, identity cards, child identity cards, family cards, moving certificates, arrival certificates, etc.

Digital services in the SiPraja and Plavon Disdukcapil in Sidoarjo Regency must log in with an account to choose a service that is needed by a person. Then, the person must fill in a lot of information and upload a digital document in a form that has been created. In the process, users of this application can print results independently or take the results to the public service office. Many problems occur in this process if a person does not have digital administrative literacy. Furthermore, the main problem is that many individuals need assistance and help in making arrangements through digital public services, where (Putri and Soesiantoro, 2023) revealed that public awareness related to personal population data is still very low.

The problem shows that accessing public services digitally requires digital administrative literacy skills by the community, di mana digital administrative literacy is the ability to use information and communication technology to find, evaluate, utilize, create, and communicate administrative information with cognitive and technical skills (Berényi and Sasvári, 2018; Safarov, 2023). Thus, all users of digital public services require digital administrative literacy skills. This digital administrative literacy skill is two competencies consisting of administrative literacy and digital literacy.

According to Berényi and Sasvári (2018); Winarno and Zulaikah (2021) administrative literacy is where a person can understand and apply administrative behavior in everyday life. Anjarsari (2014) adds that if someone has good literacy, they will be responsive and care about issues that develop in society, can think critically and creatively in solving problems, and have deep knowledge and understanding when applying them. In addition, digital literacy skills are a combination of operational skills needed to use digital hardware and information-related skills which are the ability to find, process, and produce information on the Internet (Safarov, 2023). Therefore, digital administrative literacy skills are skills possessed by someone related to the ability to find, process, and produce something in administrative activities presented through certain platforms or internet media.

Then, the digital administrative literacy skills can be realized in awareness of digital archives (Jantz and Giarlo, 2007) to prepare a digital environment in Sidoarjo starting from the family, where it focuses on digital archives for family documents. This agenda is aimed at digital environment preparation that can run effectively in supporting the achievement of the effectiveness of digital public services in Sidoarjo. Moreover, Rekasari and Fanida (2022) stated that, in Sukodono District, correspondence management must go through the SiPraja and Plavon Disdukcapil – a digital application or platform service – and the community does not fully understand the documents that must be prepared in digital form to support the ease of using these digital services. Thus, the team's agenda is to increase understanding of digital administrative literacy through family document management to families in Sukodono – Sidoarjo, from the women's community.

The need to store documents in digital form for family documents is strongly influenced by technological developments (Kleek and Ohara, 2014; Minarso et al., 2023; Sinn et al., 2017). Marshall (2011) identified the main factors for a person to archive digitally her/his documents: a digital collection, digital stewardship, and technology for storing and sustaining digital belongings. Minarso et al. (2023); Sinn et al. (2017) reported that a person's attachment to archive digitization is placed on awareness of the risk of losing original documents due to their disbursement and placement. In addition, the speed of archive retrieval can be one of the strong reasons for people to store their documents digitally (Bergman, 2013; Jones, 2007). Sinn et al. (2017) added that the most important thing on the digital document storage agenda is that users must have easily accessible storage space, sufficient storage memory capacity, a backup system of digital archives, and multiple duplicate copies.

Thus, referring to the person's preference to archive his document, the team chose the Google Drive platform because the platform has the characteristics needed by the person to practice digital archives. Herawati, Suwilo, Mawengkang, and Syahmrani (2023) stated that one account on the Google Drive platform has a storage capacity of 15GB, and each person has an account on Google Drive. This media is very familiar in Indonesia and is attached to the culture of the community in storing personal documents (Minarso et al., 2023). However, this potential has not been utilized by people in Indonesia, especially in Sidoarjo Regency, Sukodono District in managing family documents in preparation for the management of public services such as SiPraja, and Palvon Disdukcapil. So, this agenda can support the achievement of Indonesia's Sustainable Development Goals (SDGs) 9 (Allen, Metternicht, and Wiedmann, 2018; Omer and Noguchi, 2020) by helping to increase the indicator of the proportion of the population served by mobile broadband (National Development Planning Agency of Indonesia, 2023). With the readiness of the community to face digital public services and having a good understanding of digital administrative literacy, it is expected to accelerate the digitalization program and improve the achievement of SDGs 9 Indonesia.

METHOD

This Community Service is carried out in women's community at the village level to educate women in digital-based family document management using Google Drive by the groups in Sukodono District, Sidoarjo Regency, where this activity begins with 1) Observation and discussion with the target group, 2) Formulating activities with training schemes, 3) Developing program implementation instruments, 4) Program Implementation, and 5) Program Evaluation. In addition, this agenda was attended by 104 participants, where the respondents consisted of representatives in each village in Sukodono District, consisting of 32 villages. The selection of respondents was based on the distribution and coverage of the area in Sukodono District, using purposive sampling (Sugiyono, 2014), where it was intended that the dissemination of information and skills in digital-based family document management using Google Drive could be spread throughout the village community.

This Community Service adopts experimental research with a quasi-experiment model, one group pretest-posttest design (Cook and Campbell, 1979; Sholikah, Sutirman, and Hermanto, 2020), where the level of program success can be seen in the improvement of the trainees' abilities as shown in the results of the N-Gain Test calculation through the Pretest and Posttest of each participant (Arlinwibowo and Retnawati, 2015; Hermanto, Sutirman, Mar'atus, and Ranu, 2021). The indicators used in measuring the success of the program are about digital-based family document management using Google Drive, where participants must answer questions that have been made before and after training, so the results of each participant's ability are obtained. The indicators for the questions of the Pretest and Posttest are 1) why digital-based family document management is important for the person in industry 4.0, 2) what the tools are required for digital-based family document management, 3) what the classification of the family documents can

be archived by digital tools, 4) why the family documents need to be classified in digital-based family document management, 5) what the family documents can be organized in digital-based family document management, 6) what codes are used to manage digital-based family document, 7) why the codes are important for digital-based family document management, 8) what the advantages for digital-based family document management, 9) who the person needs digital-based family document management, and 10) who the person can manage digital-based family document management.

In addition, the assessment of the psychomotor aspect can be seen in the results of the practice. For the agenda, the indicators for the skill aspect are addressed in the classification of digital-based family document management by using Google Drive. The indicators are addressed in 7 forms of documents by utilizing storage facilities in Google Drive, namely 1) Personal Data Document (PDD), 2) Education Document (ED), 3) Employment Document (EmD), 4) Health Document (HD), 5) Finance Document (FD), 6) Assets Document (AsD), and 7) Family History Document (FHD), where in the Google Drive account each participant must have a folder with these names. The score for psychomotor aspect is placed on the practice results of each participant by using 0-100 scale. Furthermore, the family document for practice skills that have been scanned using a scanning machine or the photo on a smartphone are uploaded according to the predetermined classification type, for example, 1) ID card files should go into the folder of Personal Data Documents, 2) Diplomas and Grade Transcripts should go into the folder of Education Documents, 3) Land Certificates should go into the folder of Asset documents, 4) Personal or Family Photos should go into the folder Family History Document Documents, and so on. The archiving system for testing the practical skills is shown in the Figure 1.

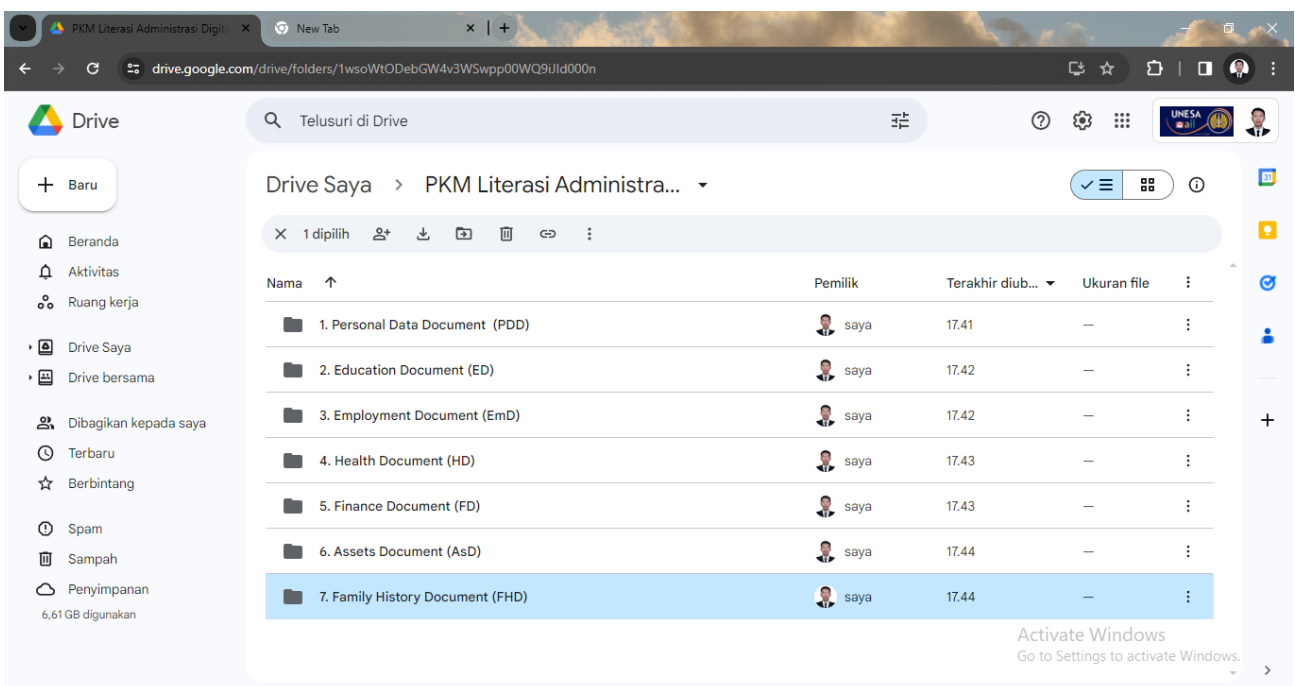


Figure 1. Archiving System for Family Documents by using Google Drive

Then, the assessment of the affective aspect can be seen from the Independence, Responsibility, and Discipline of each participant in completing the tasks in the training (Hermanto et al., 2021). Thus, the success of the program can be formulated from the three results of the assessment analysis. Furthermore, the assessment of training by participants is realized in the form of a questionnaire with Indicators and Statements modified from the model (Sari and Yarza, 2021). The questionnaires are on Table 1.

Table 1. Indicators and List of Statements in the Questionnaire

Indicators	Questionnaire
Training Theme	<ul style="list-style-type: none"> The training theme is the material provided. The training theme is suitable for what I need. The training theme is appropriate for the target group.
Punctuality	<ul style="list-style-type: none"> The training is carried out by the specified time duration. The time used is sufficient to explain the training material. The training starts according to the specified schedule.
Training Atmosphere	<ul style="list-style-type: none"> The training is conducted in a conducive atmosphere. The training environment supports the achievement of training objectives.

Indicators	Questionnaire
Material Completeness	<ul style="list-style-type: none"> • The training atmosphere is in line with participants' expectations. • The material is presented during the training completely following the training objectives.
Organizer Service	<ul style="list-style-type: none"> • The material presented can explain the training topic well. • The completeness of the material can improve the ability of participants. • The organizer gives a good briefing during the training. • The organizer is friendly during the training. • The organizer helps the training to run well.
Tools Used	<ul style="list-style-type: none"> • Implementation of training using supportive equipment. • The training uses equipment that is appropriate to the needs. • The training aids can help the implementation of activities.
Mastery of the Problem by the speaker	<ul style="list-style-type: none"> • The Speakers can respond well to questions posed by participants. • The speaker can provide solutions to the problems raised by the participants. • The speaker understands the problem raised by the participants.
Presentation method by the speaker	<ul style="list-style-type: none"> • The material presented at the training is very easy to understand. • The material was presented interestingly by the speaker (not boring). • The resource person presented the material in audio-visual form during the training.
Benefits of the material provided by the presenter	<ul style="list-style-type: none"> • The material presented at the training is very useful. • The material presented at the training can be implemented. • The material presented at the training is as needed.
Interaction between the presenters and participants	<ul style="list-style-type: none"> • The speaker provides opportunities for participants to ask questions. • The speaker interacts when delivering material to participants. • The speaker can liven up the training atmosphere so that there is an active discussion.

The assessment was aimed at participants who attended the training from start to finish, where the assessment was based on a Likert scale (Vagias, 2006) starting from a score of 1) Strongly Disagree, 2) Disagree, 3) Enough, 4) Agree, and 5) Strongly Agree.

Data Analysis

The data analysis used to measure the success of the program uses the N-Gain Test method where the pretest results and posttest results are calculated so that it can be seen at which interval the N-Gain is obtained. According to (Arlinwibowo and Retnawati (2015) determining the success of the program can use the formula $N - Gain = \frac{\text{posttest score} - \text{pretest score}}{\text{Ideal maximum score} - \text{pretest score}}$ with the criteria for the score obtained in Table 2.

Table 2. Criteria of the N-Gain Test

Interval	Criteria
N-Gain > 0.7	High
0.3 < N-Gain < 0.7	Middle
N-Gain < 0.3	Low

If the N-Gain assessment results are in the middle and high criteria, then the program can be said to be successful. If the N-Gain assessment results are in the low criteria, the program can be said to be unsuccessful. Then, the practice that is conducted by participants is assessed by the Team of Community Service or judgment method by the accuracy of the archiving results on the system. The accuracy can be shown by the score with a 1-100 scale, where a score above 70 is passed in the practice skill in digital-based family document management. As for the analysis to assess the quality of training, we refer to the model (Saputri, Sukirno, Kurniawan, & Probowasito, 2020) to assess the results of the questionnaire from the five-scale score shown in Table 3.

The scores that are shown will imply the quality of the implementation, where the criteria are addressed to very good, good, enough, not good, or very not good. This data is used to describe how the training is implemented by the community.

Table 3. Five Scale Score Conversion Guidelines

Score	Formula	Range	Criteria
5	$X_i + 0.6 SB_i < X$	4.21 – 5.00	Very Good
4	$X_i + 0.6 SB_i < X < X_i + 1.8 SB_i$	3.41 – 4.20	Good
3	$X_i - 0.6 SB_i < X < X_i + 0.6 SB_i$	2.61 – 3.40	Enough
2	$X_i - 1.8 SB_i < X < X_i - 0.6 SB_i$	1.81 – 2.60	Not Good
1	$X < X_i - 1.8 SB_i$	0 – 1.80	Very Not Good

Description:

- X_i : Average of ideal questions
 = $\frac{1}{2}$ (ideal maximum score + ideal minimum score)
- SB_i : standard deviation of ideal score
 = $\frac{1}{6}$ (ideal maximum score - ideal minimum score)
- X : score

RESULTS AND DISCUSSION

The agenda for improving awareness of digital archives is started from the village society, where they are a society that directly contacts all digital public services in a country. The training for improving awareness of digital archives was held on July 17th, 2024, and this training was followed by 104 participants from 19 villages in Sukodono District. This activity was implemented face-to-face at the Meeting Room in Sukodono Government with improving awareness of digital archives of women community as the main target. The implementation of this training is divided into two sessions, where the first session is held by material presentation from the archiving management expert from Universitas Negeri Surabaya, and the second session is implemented by practical learning, using the archival systems which utilizes Google Drive as a media in the 4.0 industrial era.

Completeness of training participants includes materials on family archive management adopted from digital archive management and family archive management materials, where the material is taken from the Book, Research Paper, and Working Paper from the archiving management expert. This training activity provides understanding, and experience to all participants in digital-based family document management, because the focus of this training is to provide awareness that, in the 4.0 industrial era, societies need to archive their documents in digital format. Besides, to accelerate the digitalization program and improve the achievement of SDGs 9, Sidoarjo needs community readiness to face digital public services, so this training is expected to be retrieved by all families in Sidoarjo. Furthermore, using this system, families can have an archive of family documents digitally, making it easier to find family documents needed quickly – especially if the original or printed documents are stored using the same document classification and facilitate families in digital correspondence management, where currently many public services require uploading complementary documents for digital correspondence management. In addition, this system has the advantage of assisting in the re-processing of lost or damaged original documents because we already have a copy of the original document in digital form. Thus, digital-based family document management is very important for families, especially in the 4.0 (digital) era where public services have shifted from manual to digital. The training overview is shown in the Figure 2.



Figure 2. Training Activities in Sukodono – Sidoarjo

Participants' awareness of digital archiving

The improvement in comprehension of digital-based family document management from the pre- and post-test results, as well as each participant's N-Gain score, demonstrate the effectiveness of the training sessions. The results of the pre-test, post-test, and the N-Gain score of each participant can be seen in table 4.

Table 4. Participants' Pretest, Posttest, and N-Gain Results

Participants	Score		N-Gain	Criteria	Participants	Score		N-Gain	Criteria
	Pretest	Posttest				Pretest	Posttest		
Participant 1	60	80	0.50	Middle	Participant 53	40	70	0.50	Middle
Participant 2	50	80	0.60	Middle	Participant 54	40	80	0.67	Middle
Participant 3	70	90	0.67	Middle	Participant 55	50	80	0.60	Middle
Participant 4	60	70	0.25	Low	Participant 56	50	70	0.40	Middle
Participant 5	50	70	0.40	Middle	Participant 57	50	70	0.40	Middle
Participant 6	40	70	0.50	Middle	Participant 58	40	70	0.50	Middle
Participant 7	40	80	0.67	Middle	Participant 59	60	80	0.50	Middle
Participant 8	40	90	0.83	High	Participant 60	70	90	0.67	Middle
Participant 9	50	90	0.80	High	Participant 61	50	70	0.40	Middle
Participant 10	60	100	1.00	High	Participant 62	60	70	0.25	Low
Participant 11	50	90	0.80	High	Participant 63	40	70	0.50	Middle
Participant 12	60	70	0.25	Low	Participant 64	40	90	0.83	High
Participant 13	50	80	0.60	Middle	Participant 65	60	100	1.00	High
Participant 14	40	80	0.67	Middle	Participant 66	70	90	0.67	high
Participant 15	40	80	0.67	Middle	Participant 67	40	70	0.50	Middle
Participant 16	50	70	0.40	Middle	Participant 68	40	80	0.67	Middle
Participant 17	50	90	0.80	Middle	Participant 69	40	80	0.67	Middle
Participant 18	50	90	0.80	Middle	Participant 70	50	70	0.40	Middle
Participant 19	60	90	0.75	Middle	Participant 71	40	80	0.67	Middle
Participant 20	60	80	0.50	Middle	Participant 72	40	90	0.83	High
Participant 21	50	70	0.40	Middle	Participant 73	50	100	1.00	High
Participant 22	50	70	0.40	Middle	Participant 74	50	70	0.40	Middle
Participant 23	50	70	0.40	Middle	Participant 75	40	70	0.50	Middle
Participant 24	50	80	0.60	Middle	Participant 76	60	70	0.25	Low
Participant 25	50	90	0.80	High	Participant 77	60	80	0.50	Middle
Participant 26	70	100	1.00	High	Participant 78	50	90	0.80	High
Participant 27	40	90	0.83	High	Participant 79	60	70	0.25	Low
Participant 28	50	70	0.40	Middle	Participant 80	40	80	0.67	Middle
Participant 29	40	80	0.67	Middle	Participant 81	40	90	0.83	High
Participant 30	50	80	0.60	Middle	Participant 82	50	100	1.00	High
Participant 31	50	80	0.60	Middle	Participant 83	60	70	0.25	Low
Participant 32	40	70	0.50	Middle	Participant 84	40	70	0.50	Middle
Participant 33	50	80	0.60	Middle	Participant 85	40	70	0.50	Middle
Participant 34	40	90	0.83	High	Participant 86	40	80	0.67	Middle
Participant 35	40	100	1.00	High	Participant 87	60	70	0.25	Low
Participant 36	50	80	0.60	Middle	Participant 88	50	80	0.60	Middle
Participant 37	50	90	0.80	High	Participant 89	50	80	0.60	Middle
Participant 38	50	100	1.00	High	Participant 90	60	80	0.50	Middle
Participant 39	60	90	0.75	High	Participant 91	50	70	0.40	Middle
Participant 40	50	70	0.40	Middle	Participant 92	60	80	0.50	Middle
Participant 41	60	80	0.50	Middle	Participant 93	50	90	0.80	High
Participant 42	60	80	0.50	Middle	Participant 94	40	70	0.50	Middle
Participant 43	60	70	0.25	Low	Participant 95	40	70	0.50	Middle
Participant 44	50	70	0.40	Middle	Participant 96	40	80	0.67	Middle
Participant 45	50	70	0.40	Middle	Participant 97	50	80	0.60	Middle
Participant 46	50	70	0.40	Middle	Participant 98	50	90	0.80	High
Participant 47	40	80	0.67	Middle	Participant 99	50	80	0.60	Middle
Participant 48	40	90	0.83	High	Participant 100	60	80	0.50	Middle
Participant 49	40	90	0.83	High	Participant 101	60	70	0.25	Low
Participant 50	40	80	0.67	Middle	Participant 102	40	70	0.50	Middle
Participant 51	50	70	0.40	Middle	Participant 103	70	90	0.67	Middle
Participant 52	50	80	0.60	Middle	Participant 104	60	90	0.75	High

Based on the table, we can see that all participants have increasing scores from Pretest and Posttest. The results imply that the awareness and understanding of digital-based family document management for all participants increase

in each N-Gain (Arlinwibowo and Retnawati, 2015; Hermanto et al., 2021). The N-Gain of each participant indicates the increase in understanding of the cognitive aspects of participants as measured by questions that are answered directly in line with the training material (Hermanto et al., 2021).

Furthermore, to find out the increase in the psychomotor aspects of each participant can be seen in the results of the practice of digital-based family document management in training. To see the psychomotor abilities of the training participants, see the Table 5.

Table 5. Participants' Practice Results

Participants	Score	Participants	Score	Participants	Score	Participants	Score
Participant 1	90	Participant 27	80	Participant 53	85	Participant 79	85
Participant 2	80	Participant 28	80	Participant 54	90	Participant 80	80
Participant 3	90	Participant 29	80	Participant 55	80	Participant 81	90
Participant 4	80	Participant 30	80	Participant 56	80	Participant 82	90
Participant 5	80	Participant 31	80	Participant 57	90	Participant 83	75
Participant 6	80	Participant 32	80	Participant 58	80	Participant 84	85
Participant 7	80	Participant 33	80	Participant 59	85	Participant 85	80
Participant 8	90	Participant 34	90	Participant 60	90	Participant 86	85
Participant 9	90	Participant 35	100	Participant 61	95	Participant 87	75
Participant 10	80	Participant 36	80	Participant 62	90	Participant 88	80
Participant 11	90	Participant 37	90	Participant 63	90	Participant 89	95
Participant 12	80	Participant 38	95	Participant 64	80	Participant 90	80
Participant 13	75	Participant 39	90	Participant 65	90	Participant 91	90
Participant 14	80	Participant 40	80	Participant 66	95	Participant 92	85
Participant 15	80	Participant 41	80	Participant 67	80	Participant 93	90
Participant 16	80	Participant 42	75	Participant 68	85	Participant 94	80
Participant 17	90	Participant 43	80	Participant 69	90	Participant 95	80
Participant 18	80	Participant 44	80	Participant 70	80	Participant 96	80
Participant 19	90	Participant 45	90	Participant 71	80	Participant 97	80
Participant 20	90	Participant 46	80	Participant 72	90	Participant 98	95
Participant 21	80	Participant 47	85	Participant 73	100	Participant 99	80
Participant 22	80	Participant 48	90	Participant 74	80	Participant 100	80
Participant 23	90	Participant 49	90	Participant 75	90	Participant 101	95
Participant 24	75	Participant 50	85	Participant 76	80	Participant 102	80
Participant 25	90	Participant 51	90	Participant 77	80	Participant 103	95
Participant 26	95	Participant 52	80	Participant 78	90	Participant 104	90

Based on the table, we can see that all participants have a score of practical skills is more than 70. This result implies that all participants have the ability (Hermanto et al., 2021) to digital-based family document management, where this ability can be implemented in their community – families, friends, and neighbors.

From all processes of this training, the attitude score of each participant in completing the tasks for Independence, Responsibility, and Discipline indicators that were taken by observation can be seen in Table 6. The table shows the average score and criteria from the three indicators of each participant.

Table 6. Participants' Attitude Results

Participants	Average Score	Criteria	Participants	Average Score	Criteria
Participant 1	3.67	Good	Participant 53	3.67	Good
Participant 2	4.67	Very Good	Participant 54	3.67	Good
Participant 3	4.00	Good	Participant 55	4.67	Very Good
Participant 4	4.00	Good	Participant 56	4.33	Very Good
Participant 5	3.67	Good	Participant 57	4.33	Very Good
Participant 6	3.67	Good	Participant 58	4.00	Good
Participant 7	4.33	Very Good	Participant 59	4.67	Very Good
Participant 8	3.33	Enough	Participant 60	4.00	Good
Participant 9	4.33	Very Good	Participant 61	4.00	Good
Participant 10	3.67	Good	Participant 62	4.00	Good
Participant 11	4.67	Very Good	Participant 63	4.67	Very Good
Participant 12	4.33	Very Good	Participant 64	4.33	Very Good
Participant 13	4.33	Very Good	Participant 65	4.67	Very Good
Participant 14	4.67	Very Good	Participant 66	3.67	Good
Participant 15	4.33	Very Good	Participant 67	4.33	Very Good
Participant 16	4.33	Very Good	Participant 68	4.00	Good
Participant 17	3.67	Good	Participant 69	4.33	Very Good

Participants	Average Score	Criteria	Participants	Average Score	Criteria
Participant 18	4.67	Very Good	Participant 70	4.67	Very Good
Participant 19	4.00	Good	Participant 71	4.00	Good
Participant 20	4.00	Good	Participant 72	4.33	Very Good
Participant 21	3.67	Good	Participant 73	4.33	Very Good
Participant 22	3.67	Good	Participant 74	3.33	Good
Participant 23	4.67	Very Good	Participant 75	4.67	Very Good
Participant 24	4.33	Very Good	Participant 76	4.33	Very Good
Participant 25	4.00	Good	Participant 77	3.33	Good
Participant 26	4.67	Very Good	Participant 78	3.00	Enough
Participant 27	3.33	Enough	Participant 79	4.33	Very Good
Participant 28	4.67	Very Good	Participant 80	4.33	Very Good
Participant 29	4.33	Very Good	Participant 81	3.67	Good
Participant 30	3.33	Enough	Participant 82	4.67	Very Good
Participant 31	3.00	Enough	Participant 83	4.00	Good
Participant 32	4.33	Very Good	Participant 84	4.00	Good
Participant 33	4.33	Very Good	Participant 85	3.67	Good
Participant 34	3.67	Very Good	Participant 86	3.67	Good
Participant 35	4.67	Ver Good	Participant 87	4.67	Very Good
Participant 36	4.00	Good	Participant 88	4.00	Good
Participant 37	4.00	Good	Participant 89	4.00	Good
Participant 38	3.67	Good	Participant 90	3.67	Good
Participant 39	3.67	Good	Participant 91	4.67	Very Good
Participant 40	4.67	Very Good	Participant 92	4.00	Good
Participant 41	4.33	Very Good	Participant 93	4.33	Very Good
Participant 42	4.67	Very Good	Participant 94	4.33	Very Good
Participant 43	3.67	Good	Participant 95	3.33	Good
Participant 44	4.33	Very Good	Participant 96	4.67	Very Good
Participant 45	4.00	Good	Participant 97	4.33	Very Good
Participant 46	4.33	Very Good	Participant 98	3.33	Good
Participant 47	4.67	Very Good	Participant 99	3.00	Enough
Participant 48	4.00	Good	Participant 100	4.33	Very Good
Participant 49	4.33	Very Good	Participant 101	4.33	Very Good
Participant 50	4.33	Very Good	Participant 102	3.67	Good
Participant 51	4.00	Good	Participant 103	4.67	Very Good
Participant 52	4.00	Good	Participant 104	4.00	Good

For the attitude score, almost all of the participants meet the Good and Very Good requirements. Each participant's score demonstrates how seriously they have taken the training. Thus, this result indicates that the entire training process, material delivery, and practice of digital-based family document management, was followed and provided a good process and result for all participants (Hermanto et al., 2021). Andriyani, Maslahah, and Suud (2023) stated that the good implementation of practices of training can effectively increase the understanding of the training material for the participants.

The Quality of Workshop

In addition, the participant's assessment of the training, on each Indicator, can be seen in Table 7 for the quality of the training.

Table 7. Results of Participants' Assessment of Training Quality

No	Indicators	Average Score	Category
1	Training Theme	4.26	Very Good
2	Punctuality	4.13	Good
3	Training Atmosphere	4.23	Very Good
4	Material Completeness	4.17	Good
5	Organizer Service	4.25	Very Good
6	Tools Used	4.21	Very Good
7	Mastery of the Problem by the speaker	4.25	Very Good
8	Presentation method by the speaker	4.21	Very Good
9	Benefits of the material provided by the presenter	4.25	Very Good
10	Interaction between the presenters and participants	4.22	Very Good
Average for All Scores		4.21	Very Good

Based on this data, it can reflect that the training was carried out effectively in the target group and the participants' assessments fell into the good and very good categories in each indicator tested. Sari & Yarza (2021) state that if the response of the training participants is good, then this can indicate that the quality of the training provided is very good, with a total average value of 4.21.

Implication for practice

The success of the training conducted for the women's community in Sukodono–Sidoarjo is expected to be an effort to create a community that is aware of the importance of digital document management in industry 4.0 - digital era. All aspects - cognitive, affective, and psychomotor – in the learning process through training activities on digital-based family document management show that the activity is effectively implemented in the community (Hermanto et al., 2021; Sholikah et al., 2020). Participant score shows that they have obtained the skills for digital-based family document management by using the Google Drive platform (Herawati et al., 2023; Putri and Soesiantoro, 2023). Therefore, we hope that these skills can be transmitted to all families in Sukodono–Sidoarjo, and these skills can be utilized for digital public services to realize the effectiveness and efficiency of public services in Sidoarjo (Putri and Soesiantoro, 2023; Rekasari and Fanida, 2022; Suparno, 2021).

In line with Minarso et al. (2023) study, the big challenge for the digitalization for digital-based family documents is to increase the awareness of the importance of digital-based family documents, where the awareness is in line with the practice and behavior. Besides, the other challenges are 1) criteria of important documents, 2) difficulties in archiving techniques, 3) fatigue/overload documents, 4) technology using - large memory space, and protection of privacy, 5) backup/duplication system, 6) trusted digital repositories (Jantz and Giarlo, 2007; Kleek and Ohara, 2014; Minarso et al., 2023; Sinn et al., 2017). However, the community needs of digital document management in Sidoarjo is very high, where almost all public services, such as Plavon Disdukcapil and SiPrajia (Putri and Soesiantoro, 2023; Rekasari and Fanida, 2022), are maintained by digital, so all societies in Sidoarjo need to manage their data in digital. Thus, the effectiveness of the training shown in the data is in line with the needs of the community and the challenges for digital-based family documents that are well-packaged and interesting for all participants.

Furthermore, the digital public service agenda promoted by the Government of Indonesia and Sidoarjo is an effort to improve the achievement of SDGs 9 on the indicator of the proportion of the population served by mobile broadband (National Development Planning Agency of Indonesia, 2023). Creating a digital public service is a step that must be taken to make all people in Indonesia able to enjoy mobile broadband services, even though this policy indirectly forces the transfer of services from face-to-face services to digital services. To support the achievement of the program and supported by data, facts, and community needs (Allen et al., 2018; Omer and Noguchi, 2020) related to the provision of digital-based family documents, this training is needed for many societies in Indonesia. The more prepared the community to support digital public services, the higher the SDGs 9 score in that region/area. Thus, this training is urgently needed for many societies in Indonesia that have prepared a good digital infrastructure to increase the proportion of the population served by mobile broadband.

CONCLUSION

The training agenda of digital-based family document management using Google Drive was effectively implemented by all participants from the scores of cognitive, affective, and psychomotor aspects. The effectiveness of the training implies that increasing community awareness of digital archives for family documents is owned by all participants, where the awareness is addressed to the use of digital public service in Sidoarjo. Then, the skills can be distributed to their families, friends, and neighbors to support the Government's agenda to set up a comprehensive digital environment. In addition, the participant's view of the training activities is the excellent implementation category, and it indicates that the training was effective and easily understood by all participants.

The government's main objective in providing digital public services is to improve the SDGs 9 score in the region/area. After a comprehensive digital environment is formed in society down to the smallest level, the proportion of the population served by mobile broadband can increase rapidly. The more prepared the community to support digital public services, the higher the SDGs 9 score in that region/area. Thus, this training is urgently needed for many societies in Indonesia that have prepared a good digital infrastructure to increase the proportion of the population served by mobile broadband in digital public service.

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