



I Gusti Ngurah Alit
Widana Putra
alit@dinamika.ac.id
S1 Information
System
Dinamika University

Tutut Wuriyanto
tutut@dinamika.ac.id
S1 Information System
Dinamika University



Teguh Sutanto
teguh@dinamika.ac.id
S1 Information
System
Dinamika University

Slamet
slamet@dinamika.ac.id
S1 Information System
Dinamika University



DIGITAL LITERACY EDUCATION FOR HIGH SCHOOL TEACHERS IN SATU GEDANGAN TO INCREASE INSIGHT AND MITIGATE HOAXES

I Gusti Ngurah Alit Widana Putra¹, Tutut Wuriyanto², Teguh Sutanto³, Slamet⁴.

^{1 2 3 4} Dinamika University, Surabaya, Indonesia, Email

Corresponding Author: alit@dinamika.ac.id

Abstract

Background. The development of internet technology and artificial intelligence (AI) technology has increased rapidly. By 2025 alone, hundreds of artificial intelligence (AI)-based technologies are expected to help complete human work faster and more efficiently. Based on statistics reported in the mass media, the amount of content uploaded increased by up to 200%. The problem is that the content may contain false information, also known as hoaxes.

Aims. The purpose of this service is to enhance the insight of SMA Negeri Satu Gedangan teachers in digesting content in a more structured manner and avoid falling victim to hoax content.

Methods. The method employed was a digital literacy workshop, accompanied by questionnaires administered at the beginning and end of the workshop.

Result. The result of the digital literacy workshop was an increase in the ability of SMA Negeri Satu Gedangan teachers to digest and understand content on social media from an average of 60% to 100%.

Implementation. The expected impact is that educators with good digital literacy skills can educate students more effectively and prevent them from becoming victims of hoaxes.



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Keywords: Literacy, Digital, Teacher, High School, Hoax

INTRODUCTION

SMAN 1 Gedangan, formerly known as SMA Negeri 18 Surabaya, was established in July 1995 with only one class. At the beginning of its establishment, this school was a subsidiary of SMA Negeri 1 Sidoarjo, with Drs. as its principal. Abdul Mukti. Over time, this school developed and officially became SMA Negeri 1 Gedangan.

The vision of SMAN 1 Gedangan is to cultivate individuals who possess faith, piety, noble character, are creative and critical thinkers, respect cultural diversity, and can collaborate effectively. The school's mission includes the development of local wisdom, intercultural communication, and the spirit of cooperation.

The current principal is Dr. H. Panoyo, M.Pd., who also teaches Biology. More information about the teacher council and staff can be found on the school's official website.

Although specific details regarding facilities are not available in existing sources, as a public school established since 1995, SMAN 1 Gedangan is likely to have standard facilities, including classrooms, laboratories, libraries, and sports facilities.



Figure 1 Page SMAN 1 Gedangan

However, in the implementation of digital and technology-based learning, there are main problems faced by partners, namely: Lack of teachers' understanding of digital literacy. Teachers experience obstacles in integrating digital technology into learning due to limited

understanding of digital literacy, including digital resource management, cybersecurity, and effective use of educational technology.

This problem is a challenge in increasing the effectiveness of learning and the readiness of students to face the challenges of industry 4.0. Therefore, this Community Service (PKM) program is designed to answer the needs of partners by providing digital literacy training for teachers.

METHOD

The stages of implementing teacher service at SMA Negeri Satu Gedangan follow the diagram as shown in Figure 2 below.

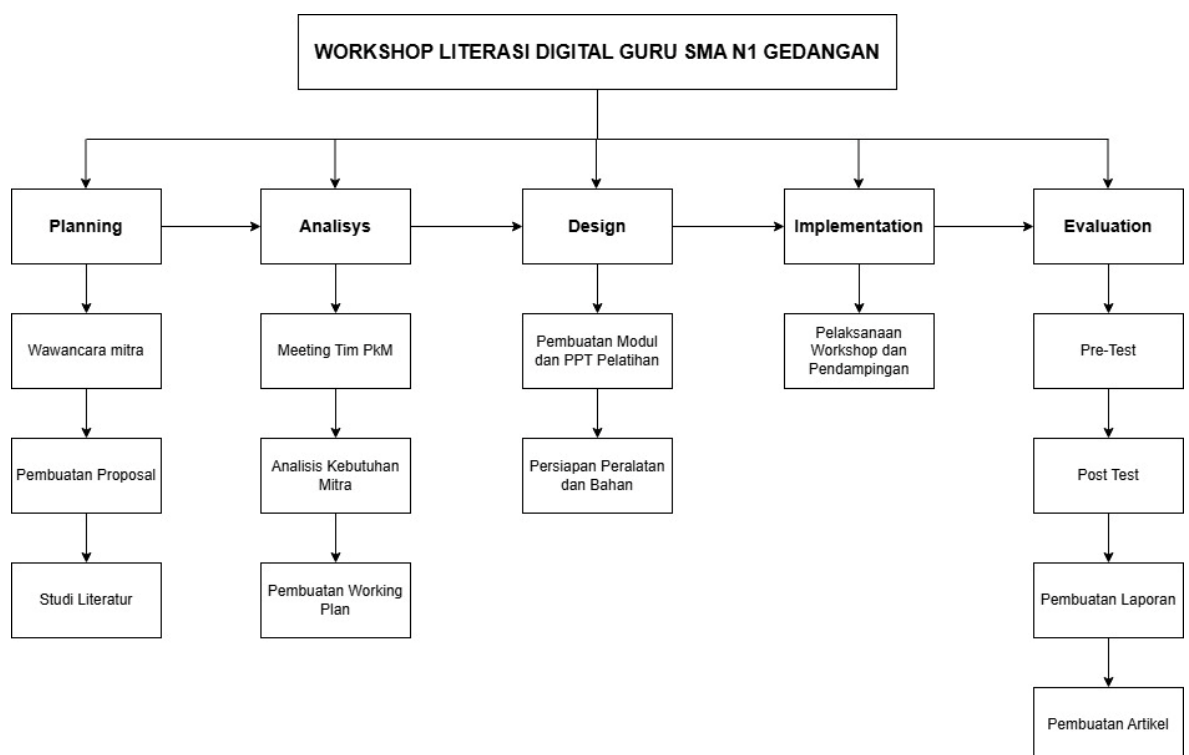


Figure 2. Stages of workshop implementation

This program refers to a roadmap consisting of several main phases, namely planning, analysis, design, implementation, and evaluation. Partners in this program include teachers and students of SMAN 1 Gedangan, who play an active role in every stage of the program's implementation. Their participation is crucial in ensuring that the training runs effectively and can be implemented sustainably.

1. Planning phase

In this phase, the PkM team visits partner locations and dialogues with partners to determine their needs. Furthermore, armed with this information, the team leader will

prepare a PKM proposal to be submitted to Dinamika University, particularly the Research and Service section, to secure funding. Furthermore, the PkM team will conduct a literature study on digital literacy. The results of the literature study on digital literacy service can be seen in Table 1 as follows:

Table 1. Results of the study on digital literacy

Year	Writer	Resume
2023	Pitrianti, S., Sampetoding, E. A., Purba, A. A., & Pongtambing, Y. S.	This paper discusses the importance of digital literacy in forming a smart village community as part of the implementation of the Smart Village program, aligning with the Sustainable Development Goals (SDGs). Through a systematic literature review of 18 national publications, this study identified two main categories of digital literacy: human resource (HR) capabilities and public service governance. Digital literacy is considered essential for increasing community participation, encouraging data transparency, preventing cybercrime and hoaxes, and improving the quality of public services and village economic empowerment. The results of the study confirm that the success of developing digital villages is highly dependent on the integration of information technology and improving the digital competence of the community, as well as the need for government policies that support the strengthening of digital literacy as a whole.
2022	Fitriyani, F., & Nugroho, A. T.	This paper discusses the importance of digital literacy in 21st-century learning through community service activities at SDN Mekar Mukti 02, North Cikarang, which aims to enhance students' literacy skills from an early age, enabling them to understand information analytically, critically, and reflectively. The activity was carried out through socialization and counseling sessions with teachers and students to discuss the role of technology in supporting literacy culture, particularly in the post-pandemic era, which encourages digital learning. The author emphasizes that digital literacy is not just a technical ability, but also encompasses critical thinking, collaboration, and creativity skills essential for navigating the challenges of the digital era.
2021	Ginting, R. V. B., Arindani, D., Lubis, C. M. W., & Shella, A. P.	This article discusses the importance of digital literacy as a form of community empowerment in the era of globalization, emphasizing that people's ability to access, understand, and utilize information technology is crucial to face the challenges of the times. Through a literature study, the authors highlight that digital literacy can be applied in three main domains: school, family, and society. In schools, digital literacy supports the learning process through the provision of computers, the internet, and digital information. In the family, parents play a role model in the wise use of digital media. And in society, digital literacy encourages communication, information distribution, and the active participation of citizens through technology. The proper application of digital literacy is believed to promote creativity, innovation, and strengthen the competitiveness and independence of the community amid rapid technological developments.

Based on the resumes of the three papers, the PkM team is very confident that digital literacy is crucial in this digital era to face challenges, understand information more critically, and prevent cybercrime and hoaxes.

2. Phase analysis

In this phase, the PkM team held a meeting to prepare for the implementation of PkM later and analyze the needs of partners. Based on the results of the dialogue in the first phase, partners urgently need digital literacy training because they still do not fully understand how to utilize digital media to educate themselves and prevent becoming victims of cybercrime and hoaxes. Furthermore, the PkM team developed a working plan to finalize the schedule of activities, which will be carried out at SMA Negeri Satu Gedangan on June 20, 2025, from 08:00 to 10:00 WIB.

3. Design Phase

In this phase, the PkM team developed a module to be used during training. Based on information gathered during the planning phase, the number of teachers participating in the training is 70. In addition to the module, the PkM team also prepared pre-test and post-test questionnaires to measure the results of this training. The forms of the pre-test and post-test questionnaires are presented in Tables 2 and 3.

Table 2. Pre-Test

Question Form	Score	Question
Multiple choice	25	What do you think digital literacy means?
Multiple choice	25	How often do you use social media for educational activities?
Multiple choice	25	Have you ever taught about digital ethics to students?
Multiple choice	25	How important do you think digital literacy is for teachers today?

Table 3. Post-Test

Question Form	Score	Question
Essay	25	What are the 4 components of digital literacy that you learned today?
Multiple choice	25	After this seminar, how do you plan to use social media positively for school activities?
Multiple choice	25	Do you feel that this seminar adds to your knowledge of digital security?
Multiple choice	25	Which part of the material do you think is most useful?

4. Implementation Phase

In this phase, the implementation of workshops and mentoring is carried out.

5. Evaluation phase

In this phase, the evaluation is conducted to assess the impact of the digital literacy workshop. The evaluation is seen from the results of the pre-test and post-test. If there is an improvement, the workshop has been successful. In this phase, a final report and an article will also be prepared.

DISCUSSION

The workshop was carried out according to plan, with the PkM team, consisting of 4 lecturers and 2 students, departing from Dinamika University to SMA Negeri 1 Gedangan, Sidoarjo. The Principal of SMA Negeri 1 Gedangan warmly welcomed the arrival of the PkM team of Dinamika University. Next, we went to the multipurpose building where the teachers were waiting to start the workshop session.



Figure 2. Opening of the workshop by the Principal



Figure 3. Remarks from the PkM team leader



Figure 4. Digital Literacy Workshop by Resource Persons



Figure 5. Assistance during the workshop

Based on the attendance list from Figure 6, the number of absent teachers is 5 out of a total of 71 teachers.

NO.	NAMA	NIP	TANDA TANGAN
1	Dr. Irena Javahy, S.Pd, M.M.	19950512200511015	
2	Dra. Mudjingsih, M.Pd.	19610119199102007	
3	Reneo, S.Pd.	196512021964011602	
4	Tine Chandra Astri, S.Pd.	1980131196012001	
5	Dra. Ika Filha, M.Pd.	197511195002008	
6	Drs. Abdul Awwad, M.Pd.	196811141990011001	
7	Sonda Sari, S.Pd, M.M.Pd.	1955061910102004	
8	Drs. Iri Utami Handayani	19801111199412003	
9	Budiono, S.Pd.	196011111903011002	
10	Falsh, S.Pd.	19751111190112001	
11	SB Chodiah, S.Pd., M.M.	19780612200112003	
12	UB Hidayat, S.Pd., M.Pd.	19800912199102002	
13	Suzana, S.Pd.	19720406197022004	
14	Muhammad Taufan Waryud, S.Pd.	198711011992011003	
15	Nur Huda, S.Pd.	197008111983011002	
16	R. Gati, Supriyanti, S.Pd.	196807171993011002	
17	Bambang Rispang, S.Pd.	196808101996011006	
18	Hornu Pratomo, S.Pd, M.M.	196711121995011001	
19	Wiek Kurniawati, S.Pd.	1978070719930112002	
20	Yayu Ayu Rahayu, Indarwati, S.Pd.	198201121005042013	
21	Muhammad Iyaz, S.Pd, M.Pd.	197008012005011008	
22	Supriyanti, M.Pd.	197208080207011014	
23	Arniast Rini, S.Pd.	196508080206041003	
24	Al Mahtuf, S.Pd, M.Pd.	196507080206041017	
25	Sulastingsih, S.Pd, M.Pd.	197404122006042021	
26	Iwan Pui Prasetyo, H, S.Pd, M.Pd.	1978031112007011007	
27	Ari Pratiwi, S.Pd, M.Pd.	1970080112006012019	
28	Drs. Achmad Fawzan Aladi	196704142005011004	
29	Nisa Irawan, S.Kom.	1977091818030602009	
30	Khadid Nurul, S.Pd.	197008080206041007	
31	Muhammad Mukono, S.Pd.	197008020406011015	
32	Sigit Tri Rahadi, S.S.	198406020110101011	
33	Agus Yudhatriko, S.Pd.	198303020306021004	
34	M. Nurul Hayati, S.Pd.	198104162005011001	
35	Sakina Widiastuti, S.Pd.	1980122015122001	
36	Riky Adani, S.Pd.	19890602020121013	
37	Iyer Kurnia, S.Pd.	19851002020121011	
38	Mega Mariska, S.Pd.	19850303022122001	
39	Drs. Terry Maranto	19600228022110002	
40	Dina Fira Pakar, S.Kom. Gr.	19821213022173034	
41	Quana Gita Yulia, S.Pd. Gr.	19860111022122001	
42	Nani Yarnisda, S.Pd. Gr.	19871128022122023	
43	Bambang Subakti, S.Pd. Gr.	19801028022111013	
44	Achmad Chawati, S.Pd. Gr.	198010101022122002	
45	Almud Nafis Muallana, S.Pd.	19841030022110009	
46	Eka Mia Wulandari, S.Pd.	19850503022121017	
47	Desla Triyoko Sanjawan, S.Pd.	19870604022110025	
48	Fauzilar, Rahmat, S.Pd.	1987110403022122002	
49	Rahman Halm, S.Pd.	19800519020111014	
50	Iis Kurniawati, S.Pd.	198705300230121015	
51	Umi Chedoni, S.Pd.	19711004041210061	
52	Rida Harah, S.Pd.	197806020124120007	
53	Muhammad Muhsin Rosyidi, S.Pd.	19830503024110002	
54	Dwi Lesben, S.Pd.	19780919024110004	
55	Tika Nurwah, S.Pd.	198410040241121018	
56	Hayu Tefriyati, S.Pd.	19910202024121045	
57	Rahli Citra Anisa, M.Pd.	19890802024111012	
58	Wenira Dina Nur Fauziah, S.Pd.	199001110241121014	
59	Rahli Andani, S.Pd.	19881217024120008	
60	Tensara Vella Vintogh, S.Pd.		
61	Muallim Salim, S.Pd.		
62	Iwan Fatmalya, S.Pd.		
63	Lukman Bahaz, S.Pd.		
64	M. Rizky Faundra, M.Si.		
65	Rani Rasmawati, S.Pd.		
66	Wahyu Muhammad Fathoni, S.Pd.		
67	Mony Fiqih Darmawati, S.Pd.		
68	Nesari Muhtasari, S.Pd.		
69	Iwan Rakhia Sari, S.Pd.		
70	Ahmad Asyraf Fala, S.Sos.		
71	Muhammad Awi Sulebati, S.Pd, Gr.		

Figure 6. Attendance list

Before and after the workshop, the PkM team distributed questionnaires in the form of pre-tests and post-tests. However, not all teachers who attended were able to complete the questionnaire fully, as some were required to participate in other activities during the workshop. Only 43 of the 71 teachers present completed the questionnaire thoroughly. The results of the questionnaire distribution are presented in Table 4.

Table 4. Results of the questionnaire distribution

No Question	The number of correct answers	Number of incorrect answers
Pre-Test		
1.	28	15
2.	24	19
3.	32	11
4.	39	4
Post-Test		
1.	43	0
2.	42	1
3.	43	0
4.	43	0

CONCLUSION

Based on the results of the questionnaire distribution, conclusions can be drawn, namely:

1. Before the training, the understanding of digital literacy was only 65% and after the training, it was 100%

2. Before training, the level of understanding of social media education was 55%, and after training, it increased to 98%.
3. Before the training, the understanding of digital ethics and cybersecurity was quite good, which was 74% and after the training, it became 100%
4. Before the training, the understanding of the importance of teachers having digital literacy skills was quite good, at 90%, and increased to 100% after the training.

IMPLEMENTATION

Thus, there has been a significant increase in digital literacy awareness, especially in: The use of social media for education, teaching digital ethics in schools, and Insights into personal digital security and the school environment. The post-seminar plan shows that 100% of participants are committed to actively educating through social media.

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BIBLIOGRAPHY

- Fitriyani, F., & Nugroho, A. T. (2022). Digital Literacy in the 21st Century Learning Era. *Literacy Journal of Community Service and Innovation*, 2(1), 307-314.
- Pitrianti, S., Sampetoding, E. A., Purba, A. A., & Pongtambing, Y. S. (2023, November). Digital literacy in rural communities. In *Proceedings of the National Seminar on Information Technology and Systems* (Vol. 3, No. 1, pp. 43-49).
- Ginting, R. V. B., Arindani, D., Lubis, C. M. W., & Shella, A. P. (2021). Digital literacy as a form of community empowerment in the era of globalization. *Pasopati Journal*, 3(2).
- Nisa, A. N. K., Fadin, D. I. N., & Gustiarti, P. O. Experiencing Museum: Exploration of Digital Free Tourism at the Ullen Sentalu Museum, Yogyakarta. *National Journal of Tourism*, 13(2), 180-194.