Ta'awun: Jurnal Pengabdian Kepada Masyarakat
Volume 06, Issue. 02 August 2026, Pages. 331-342

E-ISSN: 2774-941X
P-ISSN: 2774-9150

DOI: https://doi.org/10.37850/taawun.v6i02.1353
https://journal.faibillfath.ac.id/index.php/taawun

IMPROVING THE ACADEMIC LITERACY OF ELEMENTARY SCHOOL TEACHERS THROUGH A WORKSHOP ON WRITING SCIENTIFIC ARTICLES

Randi Eka Putra[1]*, Opi Andriani[2], Chela Aprilia Putri[3]
[1,2,3]Universitas Muhammadiyah Muara Bungo
email: randiekaputra23@gamil.com[1]; opi.adr@gmail.com[2)], chelaapriliaputri1@gmail.com[3)]*
* Corresponding Author

Received 20 May 2026; Received in revised form 05 June 2026; Accepted 27 June 2026

Abstrak

Kegiatan pengabdian kepada masyarakat ini bertujuan untuk meningkatkan pemahaman guru tentang konsep dan struktur artikel ilmiah; melatih keterampilan guru dalam menyusun draf artikel ilmiah; serta menumbuhkan motivasi untuk melakukan publikasi ilmiah. Kegiatan dilaksanakan melalui workshop partisipatif selama 2 hari dengan pendekatan andragogi yang menekankan keterlibatan aktif serta pembelajaran berbasis pengalaman nyata peserta. Peserta berjumlah 12 orang guru. Metode yang digunakan meliputi ceramah, demonstrasi, praktik terbimbing, dan umpan balik terstruktur terhadap draf artikel. Instrumen evaluasi berupa tes tertulis (pre-test dan post-test) serta rubrik penilaian draf artikel. Hasil kegiatan menunjukkan peningkatan rata-rata pemahaman peserta dari 47,5 (kategori kurang) menjadi 78,3 (kategori baik), dengan N-Gain sebesar 0,59 (kategori sedang). Sebanyak 83% peserta (10 dari 12 guru) berhasil menyusun draf artikel yang memenuhi struktur IMRaD secara lengkap, dan seluruh peserta (100%) menyatakan minat untuk mengikuti pelatihan lanjutan. Kegiatan ini menyimpulkan bahwa workshop penulisan artikel ilmiah berbasis andragogi secara efektif meningkatkan kompetensi literasi akademik guru serta mendorong budaya menulis ilmiah di lingkungan sekolah dasar. Keberhasilan ini perlu ditindaklanjuti dengan program pendampingan berkelanjutan agar peserta dapat menyelesaikan artikel hingga tahap siap dipublikasikan.

Kata kunci: Artikel Ilmiah; Profesionalisme Guru; Sekolah Dasar.

Abstract

This community service activity aimed to: enhance teachers' understanding of the concept and structure of scientific articles; develop teachers' skills in drafting scientific articles; and foster motivation for academic publication. The activity was implemented through a two-day participatory workshop using an andragogical approach that emphasized active engagement and experience-based learning. The participants comprised 12 teachers. Methods used included lectures, demonstrations, guided practice, and structured feedback on article drafts. Evaluation instruments consisted of written tests (pre-test and post-test) and a draft article assessment rubric. Results showed an average improvement in participants' understanding from 47.5 (poor category) to 78.3 (good category), with a mean N-Gain of 0.59 (medium category) and a standard deviation of 0.08. Furthermore, 83% of participants (10 out of 12 teachers) successfully produced article drafts with a complete IMRaD structure, and 100% expressed interest in attending further training. This activity concludes that the andragogy-based scientific article writing workshop effectively enhanced teachers' academic literacy competency and promoted a scientific writing culture in elementary school settings. These gains should be sustained through a follow-up mentoring program to support participants in completing articles ready for publication.

Keywords: Scientific Articles; Teacher Professionalism; Elementary Schools.

INTRODUCTION

Teachers are the spearhead of education implementation. Law Number 14 of 2005 concerning Teachers and Lecturers emphasizes that teachers must possess pedagogic, personality, social, and professional competence. One of the dimensions of professional competence that is often overlooked is the ability to develop oneself through scientific works, especially writing articles for scientific journals (UUD, 2005). The reality in the field shows that the ability of teachers in Indonesia to write scientific papers is still very low. Research Fitrianawati & Kurniawan, (2020) It found that more than 70% of primary school teachers in Sumatra have never published scientific papers in journals, both nationally and internationally. Similar conditions were reported by Andriana et al., (2024) which shows that only 12.4% of elementary school teachers in Jambi Province have experience in writing scientific articles. This situation has a direct impact on the inhibition of promotion and teacher classes, considering that Permenpan-RB Number 16 of 2009 requires scientific work as one of the requirements for promotion of functional positions of teachers in group IVa and above (Mentri, 2009).

SDN 98/II Tanjung Gedang, located in Muara Bungo Regency, Jambi Province, is not exempt from this problem. Based on the results of initial observations and interviews with school principals, none of the 12 teachers on duty have ever published an article in a scientific journal. The main obstacles identified include: (1) lack of understanding of the structure of scientific articles; (2) lack of experience in conducting class-based research; (3) limited knowledge related to citation procedures and scientific references; and (4) not used to the culture of academic writing.

Similar phenomena are also found in various other areas. Aryani, (2021) stated that the main obstacles for teachers in writing scientific articles include limited understanding of research methodologies, low academic literacy, and lack of institutional support. Meanwhile, Havifah et al., (2023) emphasized that unsustainable training programs are the main cause of the low productivity of teachers' scientific publications. This condition is a serious concern because the ability to write scientific papers not only has implications for career development, but also for improving the quality of learning through evidence-based practices (Eka, 2000).

Efforts to improve teachers' writing skills can be done through various approaches. Workshops or face-to-face training have proven to be among the most effective methods because they allow for direct interaction, discussion, guided practice, and real-time feedback. Several recent studies support the effectiveness of this model. Havifah et al., (2023), Fadila & Wiyono, (2024), Acesta et al., (2025), reported a significant improvement in the teacher's scientific writing competence

post-workshop with an average N-Gain of 0.65. Similarly, (Prastika, 2026) It proves that andragogy-based workshops produce draft articles that are more structured than conventional training. Andragogy approach developed by Andriana et al., (2024) emphasizing experiential learning, independence, and relevance to the real needs of adult learners becomes a relevant theoretical foundation in this context (Fauziah, 2023).

Although a number of similar outreach activities have been carried out in various regions, there are still gaps in the literature on programs that specifically target primary school teachers in remote areas by integrating an andragogy approach, IMRaD rubric-based article draft assessment, and impact evaluation using N-Gain. The uniqueness of this program lies in three aspects: first, the target of elementary school teachers in Muara Bungo Regency who have never received similar training; second, the design of a two-day workshop that integrates theory and guided practice in a balanced manner; and third, the use of standardized IMRaD assessment rubrics as a practical output evaluation instrument. Based on this background, a service team from the University of Muhammadiyah Muara Bungo designed and conducted a community service activity titled "Improving the Academic Literacy of Elementary School Teachers through a Scientific Article Writing Workshop" at SDN 98/II Tanjung Gedang, Muara Bungo Regency. This activity aims to: (1) improve teachers' understanding of the concept and structure of scientific articles; (2) train teachers' skills in drafting scientific articles with a complete IMRaD structure; and (3) foster teachers' motivation to actively participate in scientific publication activities.

METHOD

This community service activity was carried out with a participatory workshop design based on the andragogy (adult learning) approach. The andragogy approach is applied through four main principles: (1) orientation of real needs, where the training materials are adjusted to the real needs of teachers in career development; (2) experiential learning, where participants are asked to reflect on their teaching practices as material for writing articles; (3) active involvement of participants in each discussion, practice, and feedback session; and (4) respect for participants' learning autonomy, where the facilitator acts as a guide rather than a single speaker (Knowles et al., 2015). The participatory approach is realized through group discussions, peer review sessions between participants, and individual consultations at each stage of the activity (Budiwan, 2025). Overall, this activity was carried out in three main stages: preparation, implementation, and evaluation.

Community service activities were carried out at SDN 98/II Tanjung Gedang, Muara Bungo District, Muara Bungo Regency, Jambi Province. The activity was implemented over two full days, February 4-5, 2026, totaling 16 hours of effective

training (8 hours per day). The participants of the activity were all teachers who served at SDN 98/II Tanjung Gedang, which amounted to 12 people, consisting of classroom teachers and subject teachers. All participants were fully present during the two days of the workshop. Profiles of participants by educational background and work period are presented in Table 1.

Table 1. Profile of Service Activity Participants

No	Category	Total (People)	Percentage (%)
1	S1 Education	10	83,3
2	S2 Education	2	16,7
3	Tenure < 10 Years	4	33,3
4	Tenure 10-20 Years	5	41,7
5	Working Period > 20 Years	3	25,0
	Total	12	100

Source: SDN 98/II Tanjung Gedang

The activity was carried out using a participatory workshop method that aligns with the principles of andragogy. The implementation stage consists of four phases, namely: Preparation Phase: including coordination with the principal, need assessment, preparation of training modules, and preparation of evaluation instruments (pre-test and post-test). Implementation Phase: carried out in two main sessions. The first session (Day 1) included providing basic concepts for scientific articles, identifying IMRaD (Introduction, Methods, Results, and Discussion) components, reference tracing techniques, and citation procedures using APA Style. The second session (Day 2) focused on the practice of writing draft articles under guided instruction. Evaluation Phase: carried out through pre-test and post-test to measure the improvement of understanding, as well as the assessment of draft articles produced by participants using rubrics that have been developed. Follow-up Phase: providing written feedback on the participant's draft article and an online follow-up assistance plan.

The instruments used in this activity consist of: (1) pre-test and post-test questions in the form of multiple choice and short descriptions (25 questions); and (2) assessment rubrics for draft articles with assessment components including titles, abstracts, introductions, methods, results, and discussions, as well as bibliography. The pre-test and post-test data were analyzed using the N-Gain (Normalized Gain) calculation to assess the activity's effectiveness. The N-Gain criteria refer to the classification (Ainur et al., 2025): N-Gain > 0.7 (high), 0.3 ≤ N-Gain ≤ 0.7 (medium), and N-Gain < 0.3 (low). The N-Gain formula used is: N-Gain = (Spost – Spre) / (Smax – Spre).

RESULTS AND DISCUSSION

RESULT

Participant's Initial Understanding

The scientific article writing workshop began with an opening activity, attended by the principal, the service team, and all teachers of SDN 98/II Tanjung Gedang. In this session, the service team conveyed the objectives, stages of activities, and expected outputs, namely, increasing teachers' competence in compiling scientific articles worthy of publication. In addition, there is a convergence of views on the importance of scientific publications in developing teachers' professional competence. The participants' enthusiasm was evident from the beginning of the activity, through discussions about their experiences, obstacles, and expectations for the training to be carried out. Documentation of the implementation of the initial workshop activities is presented in Figure 1.

Figure1. Implementation of Service at SDN 98/II Tanjung Gedang

Before the workshop, participants were given a pre-test to assess their initial understanding of how to write scientific articles. The pre-test results showed an average score of 47.5, with a high of 62 and a low of 32. The distribution of pre-test scores is presented in Table 2.

Table 2. Pre-Test Scores of Assisted Participants

No	Participant Name	Pre-Test Score	Post-Test Score	N-Gain
1	N.D	38	72	0,55
2	M.M	45	80	0,64
3	M	42	75	0,57
4	N.Y	52	85	0,69
5	L	50	82	0,64
6	D.R.A	48	78	0,58
7	E.N	55	88	0,73
8	M.N	40	70	0,50
9	M.S	62	90	0,74

No	Participant Name	Pre-Test Score	Post-Test Score	N-Gain
10	C.R.S	44	76	0,57
11	M.R	46	78	0,59
12	M	32	66	0,50
	Rata-rata	47,5	78,3	0,59

Source: SDN 98/II Tanjung Gedang

The data in Table 2 show that participants' initial comprehension was in the poor category (scores < 50) for most participants, with an average score of 47.5 and a standard deviation of 8.2. The lowest score was obtained by Participant 12 (32), who had never been exposed to scientific writing, while the highest score was obtained by Participant 9 (62), who had an S2 educational background. This indicates that teachers at SDN 98/II Tanjung Gedang have a limited understanding of the concepts and techniques of writing scientific articles before participating in the workshop. There was a fairly strong correlation between participants' education level and pre-test scores: both S2-educated participants obtained above-average scores (52 and 62), whereas S1-educated participants obtained a wider range of scores. These findings are consistent with studies showing that academic background significantly affects teachers' initial understanding of scientific writing. After participating in the two-day workshop, there was a significant increase in understanding among all participants. The average post-test score was 78.3 (SD = 6.4), an increase of 30.8 points (64.8%) from the pre-test average. An average N-Gain value of 0.59 (SD = 0.08) indicates that the workshop's effectiveness falls in the moderate category according to the classification.

The greatest improvement was achieved by Participant 9, with an N-Gain of 0.74 (high category), who had the highest pre-test scores and an S2 educational background. The lowest increase occurred for Participant 12, with an N-Gain of 0.50 (moderate category), although, in absolute terms, the increase was quite large (from 32 to 66). It should be noted that two participants, namely Participant 7 (N-Gain 0.73) and Participant 9 (N-Gain 0.74), reached the high category, indicating that some participants responded very positively to the workshop method. None of the participants experienced a decline or stagnation, indicating that the andragogically designed workshop effectively accommodated the diversity of participants' backgrounds. This increase is statistically significant and consistent, given that the overall N-Gain value is above 0.50, well above the low category threshold (N-Gain < 0.3).

At the beginning of the activity, most participants still often asked about the basic format of article writing, while at the end of the workshop, they were able to identify the components of an article and began to revise the manuscript independently based on the facilitator's input. The change was also reflected in the results of the activity's final interview. One of the participants stated:

"After participating in the mentoring, I came to understand that scientific articles are different from research reports. Now I'm more confident to try to send articles to journals."

Another participant added:

"The most helpful thing is the hands-on practice sessions and consultations because we can improve the script on the spot."

The results show that mentoring not only improves participants' conceptual understanding but also increases their confidence in starting to write and publish scientific articles.

Ability to Draft Articles

In addition to measuring comprehension with a written test, participants' practical ability to draft articles was assessed using an assessment rubric. The results of the assessment of the draft article are presented in Table 3.

Table 3. Results of Participant Article Draft Assessment

No	Assessment Components	Excellent	Good	Enough	Less
1	Titles & Keywords	4 (33%)	6 (50%)	2 (17%)	0
2	Abstract	2 (17%)	5 (42%)	4 (33%)	1 (8%)
3	Introduction	3 (25%)	7 (58%)	2 (17%)	0
4	Methods	2 (17%)	6 (50%)	3 (25%)	1 (8%)
5	Results & Discussion	1 (8%)	5 (42%)	5 (42%)	1 (8%)
6	References (APA)	3 (25%)	5 (42%)	3 (25%)	1 (8%)

Sources: SDN 98/II Tanjung Gedang

Based on Table 3, the components that participants mastered most were title writing and introduction, with more than 80% of participants reaching the good or excellent category. The high mastery of this component can be attributed to its more procedural nature and can be trained explicitly in a short period. In contrast, the most difficult component to master is the results and discussion section, where only 50% of participants reach the good or excellent category. This difficulty can be explained by two main factors: first, the ability to analyze and interpret data requires more research experience; and second, most participants were not yet familiar with the data-driven critical-thinking culture needed to write discussion pieces scientifically. The research method component is also among the areas requiring more attention, with 33% of participants still in the sufficient or less category. This indicates that the session time for methodological material needs to be extended in similar programs in the future. Overall, 10 out of 12 participants (83%) drafted articles with a complete IMRaD structure, exceeding the service team's initial target of 75%.

Participants' Responses to the Activity

The response questionnaire at the end of the workshop showed a high level of satisfaction among participants, indicating success in achieving the third goal of

the activity: fostering motivation for scientific publications. As many as 91.7% of participants stated that the material presented was easy to understand and relevant to their needs. All participants (100%) stated that this activity was useful and were interested in participating in similar training in the future, a strong indicator of the formation of intrinsic motivation to do scientific work. Some of the notes and feedback from participants included requests to extend the practice sessions and to provide follow-up assistance. This high motivation is in line with the findings Baharu, (2023) which states that andragogically based workshops not only improve technical competence but also strengthen teachers' self-confidence in scientific writing.

During the reflection session, participants said that the mentoring model, which combines material delivery, hands-on practice, and individual consultation, was the factor that helped them most in understanding the article-writing process. One of the participants conveyed:

> "If it were just a seminar, maybe we would still be confused. But because we immediately practiced and were accompanied to revise the article, it became easier for us to understand."

Other participants proposed that the mentoring should not stop after the workshop.

> "We hope that there will be further assistance until the article is actually successfully submitted to the journal."

The input became evaluation material for the service team, as the workshop's success would be optimal if it were continued with a mentoring program through to the submission and publication of scientific articles.

DISCUSSION

The results of this service activity show that the andragogy-based scientific article-writing workshop effectively improves the three objectives of the activity: conceptual understanding, practical skills, and motivation for scientific publications among SDN 98/II Tanjung Gedang teachers. The average N-Gain value of 0.59 (medium category) is in line with the findings (Sapulete, 2024) who reported an average N-Gain of 0.65 in the scientific writing workshop of elementary school teachers in Central Java, as well as the findings of Zulkarnain and Nurrahman (2022) who obtained an N-Gain of 0.58 in a similar training program. The N-Gain value in the medium range is a realistic and significant result, given the limitations of the two-day duration, and is much better than conventional one-day training, which produces an average N-Gain of 0.30–0.40 (Rahmawati et al., 2021).

The achievement of the first goal of the activity, namely improving understanding, is most evident in the aspects of the structure of scientific articles and APA Style citation techniques. This is understandable, given that the material is more procedural and can be taught explicitly in a short time through demonstrations and guided exercises. The second goal, namely, improving practical skills, was achieved by 83% of participants, who were able to draft articles with a complete IMRaD structure. However, a component that requires a longer learning process is the ability to analyze and interpret data in the results and discussion sections, which demands intensive practice and more extensive research experience. (Valdi, 2023), (Prastika, 2026) explained that weaknesses in the results and discussion sections are consistent findings in almost all scientific writing training programs for teachers, because this competency requires not only writing skills, but also data literacy and evidence-based critical thinking skills. The third goal, which was to foster motivation for scientific publications, was successfully achieved, with 100% of participants expressing interest in advanced training.

These findings reinforce the argument that guided practice-based training is more effective than informative training. When participants directly draft articles under the guidance of resource persons and receive immediate feedback, the learning process becomes more meaningful and relevant. The striking difference with studies (Havifah et al., 2023), (Valdi, 2023) which used a dominant lecture approach without direct practice, resulting in an N-Gain of only 0.28 (low category), further emphasizes the advantages of the participatory workshop model applied in this activity. This approach is in line with the principles of experiential learning put forward by (Brandhuber et al., 2022), (Ver´onica, 2025) where optimal learning occurs when participants experience cycles: concrete experience, reflective observation, abstract conceptualization, and active experimentation.

Key factors for the success of this activity include: first, the relevance of the topic to the real needs of participants in career development; second, training design that integrates theory and practice; third, small group size (12 people) that allows for optimal personal guidance; and fourth, training modules that are arranged contextually in accordance with the relevant field of study for elementary school teachers. However, this activity has some limitations. Two days are not enough to produce articles ready for submission to journals. An ongoing post-workshop mentoring program is needed to ensure that participants can independently resolve the article. In addition, the sustainability of writing culture in schools is highly dependent on the principal's support and a conducive literacy ecosystem, which cannot be created through a single training.

The implications of this activity underscore the need for a continuous teacher professional development program, not just incidental training. A professional learning community model in which teachers routinely discuss and develop

scientific research and writing practices should be considered as a long-term follow-up.

CONCLUSIONS AND SUGGESTIONS

Based on the results of the activity, the andragogically-based scientific article writing workshop at SDN 98/II Tanjung Gedang succeeded in improving teachers' understanding and skills in compiling scientific articles. This is shown by the increase in participants' average score from 47.5 on the pre-test to 78.3 on the post-test, with an N-Gain of 0.59 (medium category), as well as the success of 83% of participants in compiling draft articles with a complete IMRaD structure. In addition, all participants showed high motivation to continue their scientific writing and publication practices through follow-up mentoring. Thus, the andragogical approach applied in the workshop proved effective in improving teachers' scientific writing competence while encouraging the formation of an academic literacy culture in the school environment.

The next service activity is recommended to be carried out with a longer, continuous period of assistance, not only for the preparation of draft articles but also for the processes of revision, submission, and publication in scientific journals. In addition, it is necessary to allocate more time in the practical sessions, especially for preparing methods, results, and discussions, which remain obstacles for some participants. Regular individual or group mentoring is also needed to ensure that each teacher can complete articles suitable for publication, so that the program's impact on improving the culture of scientific publication in schools can be more optimal and sustainable.

ACKNOWLEDGMENT

The service team would like to thank the University of Muhammadiyah Muara Bungo for the funding support of this activity. The greatest appreciation was also conveyed to the Principal and all teachers of SDN 98/II Tanjung Gedang for their excellent participation and cooperation during the activity.

REFERENCES

Acesta, A., Oktaviani, N. M., & Wulandari, I. (2025). Pelatihan Penulisan Karya Ilmiah untuk Meningkatkan Kemampuan Guru SD dalam Pengembangan Pembelajaran. *Jurnal Pengabdian Masyarakat Bangsa 2*(11), 5112–5120. https://doi.org/10.59837/jpmba.v2i11.1931

Ainur, I., Raditya, F., Nurul, A., Dwi, A., Ramadani, R., & Habibbulloh, M. (2025a). Ethnoscience-enhanced physics virtual simulation and augmented reality with inquiry learning : Impact on students ' creativity and motivation. *Thinking Skills and Creativity*, *57*(September 2024), 101846. https://doi.org/10.1016/j.tsc.2025.101846

Ainur, I., Raditya, F., Nurul, A., Dwi, A., Ramadani, R., & Habibbulloh, M. (2025b).

Ethnoscience-enhanced physics virtual simulation and augmented reality with inquiry learning : Impact on students ' creativity and motivation. *Thinking Skills and Creativity*, 57(1), 101846. https://doi.org/10.1016/j.tsc.2025.101846

Andriana, E., Yuliana, R., Asih, I., & Yandari, V. (2024). Penguatan Kompetensi Literasi dan Numerasi Guru Sekolah Dasar di Kabupaten Pandeglang dan Kota Serang Banten. *DEDIKASI : Community Service Reports. 6*(1), 27–36. https://doi.org/10.20961/dedikasi.v6i1.78975

Aryani, A. (2021). Identifikasi Kesulitan Guru Dalam Menyusun Publikasi Ilmiah. *Prosiding PITNAS Widyaiswara.* 1(1); 507–516. https://ejournal.iwi.or.id/ojs/index.php/pitnas2024/article/view/312

Baharu, M. (2023). Pelatihan Penulisan dan Publikasi Artikel Ilmiah untuk Mendukung Pengembangan Karier Guru. *Minda Baharu,* 7(1), 31–41. https://doi.org/10.33373/jmb.v7i1.5258

Brandhuber, T., Schneider, A., & Berberat, P. O. (2022). Implementing Kolb ´ s Experiential Learning Cycle by Linking Real Experience , Case-Based Discussion and Simulation. *J Med Educ Curric Dev*. 1–5. https://doi.org/10.1177/23821205221091511

Budiwan, J. (2025). Pendidikan Orang Dewasa (Andragogy). *Qalamuna Jurnal Pendidikan, Sosial, dan Agama*, 10(2); 107–135. https://doi.org/10.5281/zenodo.3559265

Eka, M. (2000). Peningkatan Kemampuan Guru Dalam Penulisan Karya Ilmiah Melalui Penelitian Tindakan Kelas Bagi Guru. *Publikasi Pendidikan : Jurnal Pemikiran, Penelitian dan Pengabdian Masyarakat Bidang Pendidikan*; 10(1); 1–10. https://doi.org/10.26858/publikan.v10i1.9752

Fadila, S., & Wiyono, K. (2024). SAWT (Scientific Article Writing Training): Effectiveness in increasing Physics Teachers Competence as an Effort for Sustainable Professional Development of Teachers. *Jurnal Pendidikan Indonesia (JPI). 13*(1), 117–128. https://doi.org/10.23887/jpiundiksha.v13i1.68675

Fauziah, N. (2023). Pelatihan Penulisan Karya Tulis Ilmiah kepada Guru-guru di SDN 42 Pekanbaru. *CommunityEducation Engagement Journal*. *5*(1), 87–95. https://doi.org/10.25299/ceej.v5i1.14624

Fitrianawati, M., & Kurniawan, M. R. (2020). Peningkatan Kompetensi dan Produktivitas Guru Sekolah Dasar melalui Pelatihan Karya Ilmiah. *Abdimas Dewantara,* 3(1), 43–49. https://doi.org/10.30738/ad.v3i1.3519

Havifah, B., Khosiyono, C., Nisa, A. F., & Irfan, M. (2023). Pelatihan Penulisan Artikel Ilmiah bagi Guru-Guru SD untuk Meningkatkan Kompetensi Profesionalisme Guru. *I-Com: Indonesian Community Journal*; *3*(3), 963–968. https://doi.org/10.33379/icom.v3i3.2861

Jance J Sapulete, D. (2024). Peningkatan Kompetensi Guru Melalui Pendampingan Penulisan Dan Publikasi Karya Ilmiah Bagi Guru SMA Se-Kota Samarinda. *Jurnal Pengabdian Kepada Masyarakat Nusantara*. *5*(4), 5863–5868.

https://doi.org/10.55338/jpkmn.v5i4.4621

Mentri, P. (2009). *Jabatan Fungsional Guru dan Angka Kreditnya*.

Nisa', R. (2022). Pelatihan Membuat Sitasi Karya Ilmiah Mahasiswa Menggunakan Aplikasi Mendeley. *Taawun*, 2(02), 170-179. https://doi.org/10.37850/taawun.v2i02.324

Prastika, I. J. Y. (2026). Tech-Driven Education pada Pembelajaran Andragogi Berbasis Pelatihan : A Systematic Literature Review (SLR). *JPNM Jurnal Pustaka Nusantara Multidisiplin.* 4(2), 1–13. Retrieved from https://journalpustaka.com/index.php/jpnm/article/view/1113

Rifky, S., Putra, J. M., Ahmad, A. T., Widayanthi, D. G. C., Abdullah, G., Sunardi, S., & Syathroh, I. L. (2024). *Pendidikan yang Menginspirasi: Mengasah Potensi Individu.* Yayasan Literasi Sains Indonesia

UUD. (2005). *Presiden republik indonesia*.

Valdi Giffari Rahmayati1, Kurnia Azizah, M. A. A. (2023). Efektivitas Workshop Daring Dalam Perspektif Pendidik Sebagai Pendekatan Andragogi. *BASA Journal of Language & Literature.* *3*(1), 18–25. https://doi.org/10.33474/basa.v3i1.19682

Ver´onica Villarroel Henríquez a,* , Isidora Castillo Rabanal b, J. S. A. (2025). *Applying Kolb's experiential learning cycle for deep learning: A systematic literature review*. Social Sciences & Humanities. 12(1); https://doi.org/10.1016/j.ssaho.2025.102096