

Scientific Writing Preparation Training for High School Teachers in Muara Gembong Regency

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Abstract

The low level of publication among high school teachers is an indication that the research conducted by teachers has not been fully disseminated. The purpose of this study is to provide technical guidance to teachers of SMA Negeri 1 Muara Gembong in improving the ability and quality of publication of their papers that can be used in the context of graduation or promotion/position as well as the component of assessing the portfolio of teacher certification in Indonesia. The methods used in this training include conducting discussions. The method is developed according to the situation and conditions that develop simultaneously and continuously. The population in this study are participants/teachers at SMA Negeri 1 Muara Gembong. The number of samples in this study was 25 participants or 25 teachers from various subjects at SMA Negeri 1 Muara Gembong. This training was conducted directly/offline in one of the SMA Negeri 1 Muara Gembong classes for approximately one day. The instrument used here is a questionnaire in the form of a survey of participant satisfaction with the presenters and the material that has been given. In addition, the results of this study received feedback. Namely, most participants stated that the speaker was very good at delivering material and asked for frequent training like this because the material was beneficial for the teachers there. This measure is intended so that the culture of teacher literacy and research will increase along with the rapid progress of educational science. That is, this community service activity is basically a form of concrete contribution of educational people in fulfilling the quality standards of higher education, especially in the standards of high school teacher graduates in Indonesia.

Keywords: Data Analysis, PTK, Community Service, KTI

INTRODUCTION

The rapid development of technology, information and communication does not change the role and profession of a teacher (Karlina, 2020), therefore educational disruption occurs or can be said to be the emergence of a revolution that cannot be separated from technology (Apriani et al., 2023). There are many things a teacher can do to manage technology well. One of them is making scientific papers, teachers can use technological media to search for sources of information related to the scientific papers they are going to make. Scientific writing is writing that is closely related to the teaching profession (Chasanah et al., 2022). In an educational institution, teachers have a role in analyzing existing problems and providing ideas for solving problems through data obtained in the field, this can be a source for writing (Sutoyo, et al., 2021).

Teachers are the front guard in the world of education, therefore the teacher's role must be supported by good writing competence (Ardiyansyah et al., 2018). However, the low

level of scientific publications, literacy and competitiveness of Indonesian human resources from teachers in various studies is an indicator of the weakness of the education sector in Indonesia. More than just policies are needed, but also mindsets and other accelerations in the world of education (Simarmata et al., 2022).

The low level of scientific publications from 2012 to 2023 shows that this policy has not worked as it should. On the other hand, the world of education is waiting for the latest developments and breakthroughs from teachers so that they can contribute to various advances and welfare of life (Wulandari et al., 2022). This condition certainly has a cause and is certainly not single. Therefore, collaborative efforts are needed from universities to improve the ability to write scientific papers for teachers.

A teacher's ability to write is very necessary for academics. Not only writing skills, improving teacher quality in Class Action Assessment is also very necessary to increase teacher professionalism in competing in the world of education. The world of education continues to

advance due to the demands of the times, requiring teachers at various levels to continue to develop through competition to manage education to make it even better. Seeing the ever-advancing technological developments, educators must always update their knowledge and all the latest things so that they are not inferior to other educators or even the students themselves. This should encourage or motivate educators to continue to update their knowledge, skills and abilities in order to achieve the desired educational goals.

In an era that continues to develop and become more advanced, educators are required to participate in following existing updates. The impact of globalization does not appear to be spread evenly, because many teachers still have many limitations. For example, there are still many teachers in remote areas far from urban areas who have many difficulties in improving their professionalism. Not to mention the limitations of technology (gadgets) or the internet which not all students have. So it becomes a challenge for teachers to overcome this problem. Insufficient time to deal with these problems also creates limitations for teachers who want to maximize development/progress in improving the quality of their teaching. It's very sad, it turns out that in modern times like this there are still students who don't have devices to carry out the learning process.

Bekasi is a buffer area for the capital city of Jakarta (Ansori & Majalengka, 2021). The problems that occur in Bekasi City are very likely to have an impact on the capital city and vice versa. This community service activity is a manifestation of the dharma of Jakarta State University as a Higher Education Institution, namely towards the community. This activity was carried out in the area under the supervision of the Faculty of Engineering, Jakarta State University, namely Muara Gembong District, Bekasi, West Java. so SMAN 1 Muara Gembong was chosen.

As is known, in Permenpan and RB No. 16 concerning Teacher Functional Positions and Credit Scores, teachers are required to be able to carry out scientific publication activities, one of which is writing scientific papers as one of the requirements for promotion/position (Yasir,

2020). To face the current disruptive era and industrial revolution 4.0 (Khairi et al., 2022) and in order to improve the writing skills of high school teachers in Bekasi, concrete and practical efforts are needed in various schools in Bekasi.

SMA Negeri 1 Muara Gembong is a place of community service from the Jakarta State University research team. SMA Negeri 1 Muara Gembong is located in Pantai Mekar, Muara Gembong District, Bekasi Regency, West Java. This service was attended by 25 participants consisting of teachers from all subjects at this high school. This service contains the delivery of material in the form of training in writing Scientific Articles and PTK preparation techniques to help teachers easily carry out their obligations to pass promotions/positions as well as components of portfolio assessment for teacher certification in Indonesia.

IMPLEMENTATION METHOD

Community service by conducting training in writing scientific articles and PTK preparation techniques took place on July 20 2023 at SMA Negeri 1 Muara Gembong. Researchers conducted this training in order to improve teachers' abilities in carrying out scientific writing which will later have an impact on the level of scientific publications themselves. This is of interest to teachers as well as the assessment component of teacher certification portfolios, researchers can also contribute to teachers who want to increase scientific publications in their respective schools.

The method used in this training activity is discussion. This method was developed in accordance with developing situations and conditions, simultaneously and continuously. As the final result of the training, feedback was given to participants in the form of a survey of participant satisfaction during the training from start to finish. Then, after the results of the satisfaction survey are obtained, they will be processed to find out the final results of this research. The stages of this training activity are through planning training, implementing training/mentoring, and publishing articles by the committee online as the final result of the research. The following are the training stages:

A. Preparation phase :

This stage is carried out through planning activity concepts, planning with meetings with the team, the form of planning is: Planning activity concepts, proposals and activity schedules. This training activity has the concept of providing technical guidance to improve teachers' abilities in writing scientific papers. The form of activity is training in writing scientific articles and PTK preparation techniques. Then prepare a service proposal which consists of situation analysis, partner problems, activity objectives, activity benefits, problem solving framework, targets, strategic

planning steps, output targets, methods used, realization of problem solving, expertise needed to solve the problem, proposing team, costs, and activity schedule. The proposal was made in January 2023 by the Faculty of Engineering, Jakarta State University. The schedule for community service activities will take place at SMA Negeri 1 Muara Gembong on July 20 2023. The schedule for community service activities in the form of training activities for writing scientific articles in national journals is as follows.

Table 1. Schedule of Community Service Activities.

Activity Description	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
Problem Determination												
Dedication Design Design												
Implementation of P2M												
Monitoring & Evaluation												
Reporting												

Coordination is carried out by universities with partners, namely Jakarta State University and Muara Gembong 1 Public High School. The participants were 25 teachers from SMA Negeri 1 Muara Gembong. Determination of the resource person, namely Mr. Dr. Riyan Arthur, M.Pd. from UNJ, where he is an expert in his field and has experience in writing scientific articles both nationally and internationally with a reputation. Determination of the training concept. This training concept is a direct demonstration at school. Determination of training materials in the form of PTK preparation techniques and writing scientific articles.

B. Implementation Stage:

The offline training implementation phase will be carried out according to schedule, namely on July 20 2023 at 10.00 WIB. This training was carried out in the classrooms of SMA Negeri 1 Muara Gembong and was attended by 25 teachers as participants, the principal and representatives, lecturers as presenters, and several students as service committee members. This training began with an opening by the MC, remarks by the principal/deputy principal, head of the UNJ Building Engineering Education Study Program, giving plaques and souvenirs from the University to the school, presentation of material along with questions and answers, and closing accompanied by documentation and giving souvenirs to the participants.

RESULTS AND DISCUSSION

In order to carry out community service, it is carried out every year, as a form of concern for the community. In this case, the target area of the UNJ Faculty of Engineering is Muara Gembong District, Bekasi, West Java. This training was guided by the MC, namely two UNJ PTB undergraduate students, Alfina Putri Damaiyanti Nababan and Firda Septiani in a community service activity with training material on scientific article writing and PTK preparation techniques. Then the opening was continued by the Head of the Building Engineering Education Study Program, namely, Anisah, MT and the Deputy Principal of SMA Negeri 1 Muaragembong Rokib, S.Pd, M.Pd.

Furthermore, after the P2M activity was officially opened by the Head of the Building Engineering Education Study Program, FT UNJ and the Deputy Principal of SMAN 1 Muara Gembong, this activity was opened by MC Alfina and Firda. Then the MC guided the process of handing over the plaque to SMAN 1 Muaragembong as symbolic proof that the Civil Society, Faculty of Engineering, Jakarta State University had carried out the P2M activities. The plaque was given by the Head of the FT UNJ Building Engineering Education Study Program to the Deputy Principal of SMAN 1 Muaragembong. The following is a picture documenting community service activities at SMA Negeri 1 Muara Gembong.



Figure 1. Opening of Community Service Implementation

Then continued with the presentation of material by Dr. Riyan Arthur, M.Pd. and Dra. Daryati, MT on "Preparing Scientific Writing", Dr. Riyan Arthur, M.Pd. explains scientific papers, scientific literature, scientific publications, types of proceedings, components of articles in journals, and how to write scientific

articles. The techniques for preparing PTK as well as scientific publications and things needed in PTK for teachers at SMAN 1 Muara Gembong are also explained. The following is documentation of the presentation of material by Dr. Riyan Arthur, M, Pd.



Figure 2. Presentation of material along with questions and answers

This community service activity has the concept of providing technical guidance to improve teachers' abilities in writing scientific papers. The form of activity is training in writing scientific articles and PTK preparation techniques. This activity was carried out

collaboratively between universities (PT) and high schools (SMA) for teachers at SMA Negeri 1 Muara Gembong. The form of this activity is offline in the classrooms of SMA Negeri 1 Muara Gembong. The following is documentation of the closing of community service.



Figure 3. Closing of Community Service

The training activity for compiling scientific articles will be held on July 20 2023 at 10.00 WIB until completion. Furthermore, this training has output in the form of survey results of participant satisfaction with the training that has been provided. The results of the participant satisfaction survey are divided into 3 aspects, namely the material aspect, the presenter aspect and other aspects. The following are the results of the participant satisfaction survey in reviewing each aspect.

1. Material Aspects

Assessments were given by the participants by selecting categories on a Likert scale of 1,2,3,4 with the information "1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree)" which is then the sum of each aspects will be divided by the number of participants, namely 25. The results of the material aspect consist of 8 aspect descriptions, namely the material presented

meets the needs of 95% (very good), the material presented meets the research objectives of 91% (very good), the material presented is interesting for 97% (very good), the material presented was new at 87% (very good), the material provided was in accordance with the schedule given by the committee at 90% (very good), the material provided at the training was very useful at 96% (very good), the material taught is in accordance with current conditions in the field at 92% (very good), and the training material provided is less relevant for me at 44% (very good). Where the total average percentage of survey participants' satisfaction with the material aspect was 86.5% (very good). This average can be concluded to be very good, because it meets the criteria for the percentage of respondents' responses, namely 84.01% - 100% (very good).

Table 2. Participant Satisfaction Survey



2. Presenter Aspect

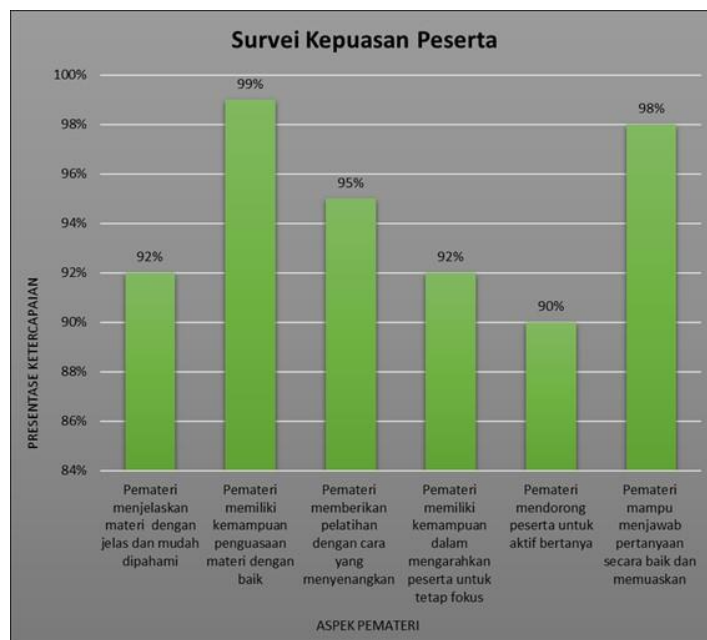
Assessments were given by the participants by selecting categories on a Likert scale of 1,2,3,4 with the information "1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree)" which is then the sum of each aspects will be divided by the number of participants, namely 25. The results of the presenter aspect consist of 6 aspect descriptions, namely the presenter explains

the material clearly and is easy to understand at 92% (very good), the presenter has the ability to master the material well at 99% (very good), the presenter provided training in a fun way by 95% (very good), the presenter had the ability to direct participants to stay focused by 92% (very good), the presenter encouraged participants to actively ask questions by 90% (very good), and the presenter was able to answer questions well and satisfactorily at 98% (very good). Where

the total average percentage of survey participants' satisfaction with the speaker aspect was 94.33% (very good). This average can be concluded to be almost perfect,

because the percentage is very high, namely above 90% (very good).

Table 3. Participant Satisfaction Survey



3. Other Aspects

Assessments were given by the participants by selecting categories on a Likert scale of 1,2,3,4 with the information "1 (strongly disagree), 2 (disagree), 3 (agree), and 4 (strongly agree)" which is then the sum of each aspects will be divided by the number of participants, namely 25. The results of other aspects consist of 5 aspect descriptions, namely presentation time is appropriate at 90% (very good), presentation method is appropriate at 91% (very good), this training

is very useful at 98% (very good), I felt there was no influence on me after attending this training, 44% (not good), and the implementation of the event was well organized by the committee, 86% (very good). Where the total average percentage of survey participant satisfaction in other aspects was 81.8% (good). This average can be concluded as good, because it meets the criteria for the percentage of respondents' responses, namely 68.01% - 84.00% (good).

Table 4. Participant Satisfaction Survey



Based on the results of the three aspects above, it can be seen that the average number of all 19 aspects is 87.74% (very good). Then it can be concluded that the satisfaction assessment of all participants towards the presenters is very

satisfied and good because it has a percentage above 84.01% (very good). These criteria can be seen in the table below.

Table 5. Criteria for Percentage of Respondent Responses

No.	% Total score	Criteria
1	20.00% - 36.00%	Not good
2	36.01% - 52.00%	Not good
3	52.01% - 68.00%	Pretty good
4	68.01% - 84.00%	Good
5	84.01 – 100%	Very good

(Source: Umi Narimawati, 2007:85)

Then the strategies that researchers have used in compiling scientific papers include: 1) Looking for research ideas according to the teacher's skills, interests and interests, 2) Looking for relevant and up-to-date journals, 3) Paraphrasing from various relevant and up-to-date journals, 4) Using citation software such as Mendeley and the like, 5) Looking for Proceedings or journals that can contain scientific articles according to the study program 6) Creating scientific sentences and paragraphs using citation software, and 7) Arranging articles according to the proceedings or journal that will be addressed.

The accompanying training activities for preparing scientific papers in proceedings and national journals for participants are: a) Providing insight, understanding and understanding of scientific papers and research according to the teacher's interests, b) Practicing downloading and using citation software, c) Practicing downloading journals related to the teacher's field and research interests, d) Assistance stage in preparing scientific papers in proceedings or national journals, and e) Evaluation stage is carried out by giving questionnaires to teachers regarding training.

CONCLUSION

Based on the analysis of the situation and problems that arise above, the conclusions from this activity are: 1) Can provide a basis for

mastering the concept of scientific work for high school teachers, 2) Can provide technical guidance for high school teachers in determining research material related to the field being taught, 3) Building teachers' interest in research both internal and interdisciplinary, and 4) Providing technical guidance to improve teachers' abilities in writing scientific papers.

SUGGESTION

The participants were very enthusiastic about participating in the training event from start to finish. They provided suggestions and criticism in the form of teachers' wishes for training like this to be held again on an ongoing basis because it was very good and useful for the teachers there.

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BIBLIOGRAPHY

Ansori, Y. Z. (2021). *Coaching Clinic*
Penulisan Karya Tulis Ilmiah Dan

- Publikasi Pada Open Journal System (Ojs) Bagi Peningkatan Kompetensi Guru Sekolah Dasar Di Kabupaten Majalengka. *BERNAS: Jurnal Pengabdian Kepada Masyarakat*, 2(4), 1022-1026.
- Apriani, E., Fathonah, S., Ilham, M., & Romadhan, A. D. (2023). Workshop Penyusunan Karya Tulis Ilmiah bagi Guru SMA Negeri 1 Sebatik Kalimantan Utara. *Jurnal Pengabdian Kepada Masyarakat*, 2(8), 5787–5792.
- Ardiyansyah, Maruwae, A., Panigoro, M., Alwi, N. M., & Taan, H. (2018). Pengembangan Keprofesionalisme Berkelanjutan Guru. *Jurnal Pengabdian Masyarakat Berkelanjutan*, 6, 1–12.
- Arthur, R., Tjalla, A., Supriyatti, Y., & Sarifah, I. (2022). Kepuasan Guru Sma Desa Bobojong Terhadap Pelatihan Pengembangan Instrumen Penilaian Autentik Untuk Meningkatkan Profesionalisme Guru. *Abdi Masyarakat*, 4(2).
- Chasanah, S. L., Nurvazly, D. E., Utami, Y. T., Salsabila, B. T., & Adelia, L. (2022). Peningkatan Keterampilan Guru SMK Muhammadiyah Karya Tulis Ilmiah. *Journal of Technology and Social for Community Services (JTSCS)*, 3(2), 287–292.
- Ekawarna, E., & Salam, M. (2020). Pelatihan PTK: Alternatif Solusi Dalam Meningkatkan Kemampuan Guru Menyusun Karya Tulis Ilmiah. *Jurnal Karya Abdi Masyarakat*, 4(2), 195-205.
- Karlina, D. A. (2020). Meningkatkan Kompetensi Guru melalui Karya Tulis Ilmiah untuk Menyongsong Era Revolusi Industri 4.0. *Jurnal Pasca Dharma Pengabdian Masyarakat*, 1(1), 6–9.
- Khairi, M. A., Ubaidillah, M., Putri, E. J., Aulia, I. N., Astika, L., Sufn, N., & Yasmin, S. (2022). Kemampuan Keprofesionalan Guru Dalam Menghadapi Kemajuan Teknologi di Era 4.0. *El-Mujtama: Jurnal Pengabdian Masyarakat*, 3(1), 128–136.
- Muslihuddin, M. (2017). Penerapan Metode Pelatihan Karya Tulis Ilmiah Untuk Meningkatkan Kemampuan Guru Dalam Menyusun Penelitian Tindakan Kelas (Penelitian Tindakan terhadap Guru-guru SDdi Kota Cimahi Semester 1 Tahun 2016/2017). *Jurnal Ilmiah P2M STKIP Siliwangi*, 4(1), 30-38.
- Nilakusmawati, D. P. E., Sari, K., & Puspawati, N. M. (2016). Upaya peningkatan penguasaan guru SD dalam penelitian tindakan kelas dan penulisan karya tulis ilmiah melalui pelatihan. *Jurnal Udayana Mengabdi*, 15(1), 55-63.
- Sawitri, S., Pujiyana, P., Yuliani, S. W., & Priyatiningsih, N. (2023). Penyusunan PTK dan Jurnal Nasional Bagi Guru–Guru SMA 1 Jumapolo Karangannyar Sebagai Penunjang Pak Angka Kredit Untuk Guru. *Joong-Ki: Jurnal Pengabdian Masyarakat*, 2(3), 531-538.
- Simarmata, J. E., Dewi, N. P. Y. A., Sila, V. U. R., Shidik, M. A., & Sele, Y. (2022). Pelatihan Mendeley Desktop Untuk Penulisan Karya Tulis Ilmiah Bagi Guru-Guru Smp Negeri Wini. *Martabe: Jurnal Pengabdian Kepada Masyarakat*, 5(4), 1355–1363.
- Sutoyo, Suyatno, E. (2021). Pelatihan Penyusunan Karya Tulis Ilmiah Untuk Guru- Training of the Scientific Writing for the High School. *Qardhul Hasan: Media Pengabdian Kepada Masyarakat*, 1(Skala 4), 158–165.
- Widana, I. W., Suarta, I. M., & Citrawan, I. W. (2019). Penerapan metode simpang tegar untuk meningkatkan kemampuan guru dalam penulisan PTK dan artikel ilmiah. *JPM (Jurnal Pemberdayaan Masyarakat)*, 4(1), 365-375.
- Wulandari, A., Retnasari, & Nugraheni, M. W. (2022). Penguatan Gerakan Literasi Guru Melalui Pendampingan Penyusunan Karya Tulis Ilmiah di SMA Sudirman Tembarak Kabupaten Temanggung. *Indonesian Journal of Education and Learning*, 5(2), 124–129.
- Yasir, M. (2020). Profil Artikel Ilmiah Hasil Pelatihan Penulisan Karya Tulis Ilmiah Guru Biologi SMA Se-Kab. Sidoarjo. *Jurnal Ilmiah Pangabdh*, 6(1), 1–5.