



# Increasing the professionalism of Muhammadiyah high school teachers through assistance in writing and publishing scientific articles


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ARTICLE INFO	ABSTRACT
<p><b>Article history</b></p> <p>Received: 2023-01-01 Revised: 2023-01-27 Accepted: 2023-01-28 Published: 2023-01-28</p> <p><b>Keywords</b></p> <p>Muhammadiyah teacher's Publish Scientific article Teacher professionalism Writing</p>	<p><i>Education policy especially for teachers continues to develop. The teacher's policy to be productive in writing scientific articles is one of the important policies that need attention. The purpose of this service is to provide an understanding of scientific articles and improve the ability of teachers to write scientific articles at SMA Muhammadiyah 1 Sumenep. The method used is the classical and individual methods. The classical approach is carried out in the socialization of writing scientific articles related to the writing procedures and benefits of scientific articles. An individual approach is applied when assisting in writing scientific articles from the stages of making backgrounds, methods, discussions, conclusions, abstracts, and writing citations using Mendeley, as well as the process of submitting national proceedings. The results of this mentoring activity found that there were 15 teachers who took part in the socialization activity, but in the writing assistance there were only 9 teachers, and there were 5 scientific articles that were successfully published in national proceedings. The conclusion obtained in this activity is that all teachers at SMA Muhammadiyah 1 Sumenep have understood the benefits and procedures for writing scientific articles, and most teachers are motivated to actively write and publish the results of their scientific writing.</i></p>
<p><b>Kata kunci</b></p> <p>Artikel Ilmiah Guru Muhammadiyah Publikasi Penulisan Profesionalitas guru</p>	<p><b>Meningkatkan profesionalisme guru SMA Muhammadiyah melalui pendampingan penulisan dan penerbitan artikel ilmiah.</b> Kebijakan pendidikan khususnya bagi guru terus berkembang. Kebijakan guru untuk produktif menulis artikel ilmiah merupakan salah satu kebijakan penting yang perlu mendapat perhatian. Tujuan pengabdian ini adalah untuk memberikan pemahaman tentang artikel ilmiah dan meningkatkan kemampuan guru dalam menulis artikel ilmiah di SMA Muhammadiyah 1 Sumenep. Metode yang digunakan adalah metode klasikal dan individual. Pendekatan klasikal dilakukan dalam sosialisasi penulisan artikel ilmiah yang berkaitan dengan tata cara penulisan dan manfaat artikel ilmiah. Pendekatan individual diterapkan saat pendampingan penulisan artikel ilmiah mulai dari tahapan pembuatan latar belakang, metode, pembahasan, kesimpulan, abstrak, dan penulisan sitasi menggunakan Mendeley, serta proses penyerahan prosiding nasional. Hasil dari kegiatan pendampingan ini ditemukan bahwa terdapat 15 guru yang mengikuti kegiatan sosialisasi, namun pada pendampingan penulisan hanya terdapat 9 guru, dan terdapat 5 artikel ilmiah yang berhasil dipublikasikan dalam prosiding nasional. Kesimpulan yang diperoleh dalam kegiatan ini adalah semua guru di SMA Muhammadiyah 1 Sumenep telah memahami manfaat dan tata cara penulisan artikel ilmiah, dan sebagian besar guru termotivasi untuk aktif menulis dan mempublikasikan hasil karya tulis ilmiahnya.</p> <p style="text-align: right;">Copyright © 2023 Nuryady et al This is an open access article under the CC-BY-SA license</p> 

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## INTRODUCTION

Improving the management of education continues to be carried out in a comprehensive and democratic manner so that education in Indonesia can compete with other countries (Fadhli, 2017). The development of policies in the world of education, especially for teachers, continues to develop dynamically. The demands of teacher professionalism are taken into account not only from teacher activities in classroom learning but also other supporting matters (Faiqoh, 2019). One of them is the activity of publishing scientific articles in scientific magazines/journals contained in PERMENPAN-RB Number 16 of 2009 concerning Functional Positions of Teachers and Their Credit Scores (Ibda, 2017). This happens to create quality educators.

Teachers as the forefront of education certainly have many problems they face, but on the other hand teachers also have data to be able to answer these problems. The teacher's lack of understanding about the publication of scientific articles also affects the application of innovations in schools (Hendrik & Martahayu, 2018). This is because scientific articles are a renewable communication medium for research results that can be trusted and are always up to date or in this case can be applied in the present. Research articles conducted by teachers in class can help other teachers to find solutions to problems that arise in class (Souto-Manning & Bean-Folkes, 2011). This will certainly support teachers to create learning that helps students to achieve knowledge, skills, and attitudes that are in accordance with learning objectives.

Interestingly, conducting research will be a challenge for teachers (Gray, 2013). This is because every classroom is different. The complexity that is formed in each class can provide strong reasons for teachers to be able to reflect on the learning activities that occur (Nurdyansyah & Fahyuni, 2016). One way to do this is to conduct research in their own class. Conducting research can also pave the way for better teacher practice and can guide continuous professional development for them (Albergaria-Almeida, 2010; Dailey & Robinson, 2017; Gray, 2013; Yin & Buck, 2019). Professional teachers must have four competencies that have been determined in law no. 14 of 2005 in article 10 paragraph 1, includes pedagogic competence, personal competence, social competence and professional competence. Professional competence is related to mastery of learning material broadly and in depth by teachers so that students can achieve the expected competencies. One of the ways to achieve this professional competence is through research-based learning (Sajidan, 2010). Therefore research for teachers is an important thing to do as an effort to improve the quality of their learning and professionalism (Fitria et al., 2019). Today's teachers are demanded to be more professional, more reliable, and more competent (Mugara, 2011). This is the demand of modern society. So, conducting research for a teacher is a means to improve the ability of teachers in developing their profession. The efforts to increase teacher professionalism are closely related to increasing teacher literacy. Increasing literacy is also one of the international agendas towards a literacy society in accordance with the Sustainable Development Goals (SDGs) by UNESCO. The UNESCO clearly states that the 4th goal of SDGs is related to Quality of Education which must be achieved by 2030 "ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy" (UNESCO, 2016).

Moreover, the results of the service team's interview with the Principal of SMA Muhammadiyah 1 Sumenep stated that in general teachers were not interested in conducting research and writing articles let alone publishing the results of their research. Therefore, this service aims to increase teachers' understanding of scientific writing, writing procedures, and publishing scientific papers. In the future, it is hoped that the results of this service can become a guideline in service with the same goal so that the quality of teachers in Indonesia can be even better in terms of the number of scientific publications.

## METHOD

The method used is the classical and individual methods (Gunawan et al., 2018). The classical approach is carried out in the socialization of writing scientific articles related to the procedures for writing and the benefits of scientific articles. An individual approach is applied when assisting in writing scientific articles starting from the stages of making backgrounds, methods, discussions, conclusions, abstracts, and writing citations using Mendeley, as well as the process of submitting national proceedings. The target in this activity is a total of 15 teachers at SMA Muhammadiyah 1 Sumenep to participate in socialization activities on writing and the benefits of having scientific articles, and at least half of the total teachers succeed in publishing their scientific work in national proceedings. The activities carried out by the team consist of:

### Socialization of the program

This socialization activity was carried out on August 10, 2022. At this stage a schedule was also agreed upon for the implementation of writing and publication assistance, as well as the division of tasks for each party. The parties involved include the service team, the principal as school policy regulator, and the teacher as a supporter of program implementation. The division of tasks referred to as follows:

- a. The duties of the servant include being a facilitator in providing refreshment materials related to research and providing training to make publication of teacher's scientific works and accompanying the scientific work publication process.
- b. The principal's job is to organize and provide policies for the successful implementation of the program, namely by giving assignment letters to teachers who are motivated to write and publish.
- c. The teacher's task is to implement and support service activities, namely as an object of service so that they have knowledge and at the same time have works that have been published nationally.

### Seminar about research and publication

The activity of providing material on research design in class for teachers was carried out on October 4, 2022, by presenting Mr. Husamah, M.Pd as a lecturer with the highest Sinta Score at UMM. This activity is expected to be attended by all teachers at SMA Muhammadiyah 1 Sumenep. The material provided is related to various kinds of research that teachers might be able to do. The delivery of material is also expected to provide motivation for teachers to return to actively conducting research.

### Assistance in the publication of teacher scientific work

Writing assistance activities and submitting scientific publications were carried out virtually on October 28 through a zoom meeting. This activity includes assistance in writing background, methods, results, discussion, conclusions, abstracts and citation methods using Mendeley. Activities produce drafts of scientific articles that are good and worthy of publication. Follow-up activities carried out in the form of assistance in submitting to the National Proceedings.

## RESULTS AND DISCUSSION

The implementation of government policies that review the publication of scientific articles in scientific magazines/journals by teachers in schools is still not fully implemented. Publication activities are the estuary of research activities, while teachers are generally not much involved in research development in their schools. This is also the case at SMA Muhammadiyah 1 Sumenep, where teachers tend to be passive in carrying out independent research activities. In general, teachers more often accompany their students' simple research activities, but these activities are only limited to research and are not continued as outputs for scientific publications. According to Wahid (2021) teachers who understand the importance of scientific publications will be active in conducting research, writing, and publishing the results of these writings in journals/proceedings. Scientific articles are also a benchmark for the professionalism of a teacher apart from in terms of learning (Rahyasih et al., 2020).

### Teacher's understanding of scientific articles

Measurement of teachers' understanding of scientific articles was measured from the results of a survey that was carried out after the implementation of the community service program. The survey results regarding teacher knowledge related to writing scientific articles can be seen in Figure 1 and Figure 2. Increasing teacher understanding of scientific articles is inseparable from socialization and mentoring activities, this is in line with Prastya, (2016) ; Raharjo, (2020) ; Roziqin et al., ( 2020) which states that intensive mentoring will increase teacher knowledge and understanding which will ultimately increase teacher motivation.

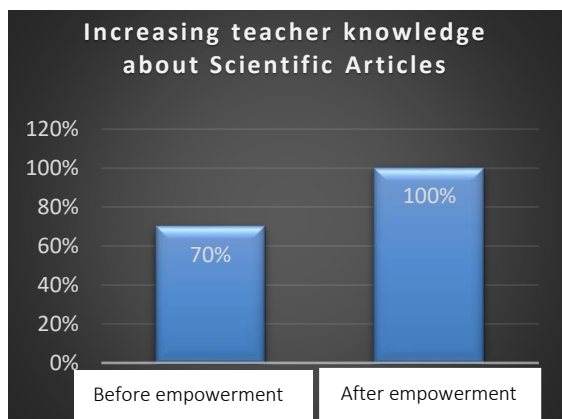


Figure 1. Increase in knowledge

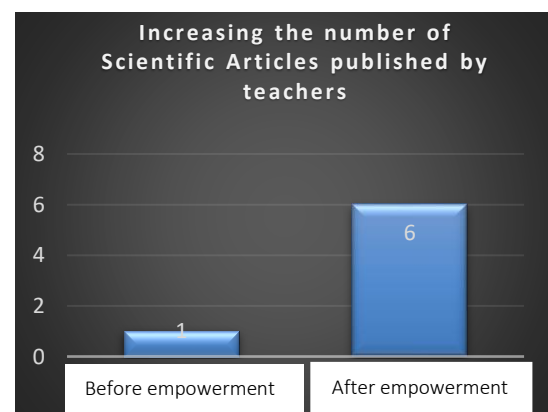


Figure 2. Increase in the number of articles

### Assistance in writing and publishing teacher scientific articles

The result of this activity was the motivation of some teachers to participate in mentoring activities for writing scientific articles. Teachers who participate in mentoring activities are directed to collect the results of student research that has been carried out, then the team helps provide directions related to writing rules (the team acts as a reviewer) (Figure 3). The follow-up activity is to motivate teachers who have participated in writing assistance to attend the National Seminar whose output is publication in the National Proceedings. There were five titles presented in the scientific activities of the National Seminar, and the five articles were declared fit for publication (Figure 4). The five published scientific article titles of SMA Muhammadiyah 1 Sumenep teachers can be seen in Table 1.



Figure 3. Socialitation of the scientific article workshop

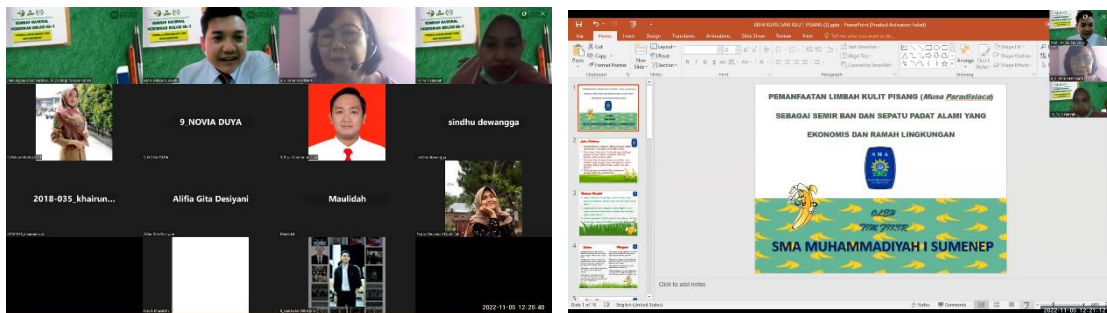


Figure 4. Muhammadiyah teachers joined national seminar before published the scientific articles in national proceeding

Table 1. list of scientific articles published in national journals

No	Article Title	Writer	Article Links
1	Modification of <i>Eucheuma cottoni</i> seaweed and gauze as innovative biosorbents for gangrenous wounds in-vitro	Dwi Yuliowati, Yuni Haryanti, Damayanti Damayanti	<a href="http://research-report.umm.ac.id/index.php/psnpb/article/view/531">http://research-report.umm.ac.id/index.php/psnpb/article/view/531</a>
2	Utilization of waste crab shells and used plastic bottles of mineral water for gypsum is an innovative solution to environmental pollution	Yuni Haryanti, Dwi Yuliowati, Damayanti Damayanti	<a href="http://research-report.umm.ac.id/index.php/psnpb/article/view/5359">http://research-report.umm.ac.id/index.php/psnpb/article/view/5359</a>
3	The metamorphosis of bottled water plastic waste into an innovative and economical imitation marble wall stone	Yuni Haryanti, Dwi Yuliowati, Damayanti Damayanti	<a href="http://research-report.umm.ac.id/index.php/psnpb/article/view/5358">http://research-report.umm.ac.id/index.php/psnpb/article/view/5358</a>
4	Development of contextual experimental worksheets on alcoholic fermentation to increase motivation and learning outcomes for SMA	Dwi Yuliowati, Damayanti Damayanti, Yuni Haryanti	<a href="http://research-report.umm.ac.id/index.php/psnpb/article/view/5335">http://research-report.umm.ac.id/index.php/psnpb/article/view/5335</a>
5	Innovative heart simulator as an effort to increase motivation and learning outcomes on the mechanism of human blood circulation	Dwi Yuliowati	<a href="http://research-report.umm.ac.id/index.php/psnpb/article/view/5334">http://research-report.umm.ac.id/index.php/psnpb/article/view/5334</a>

Source: observation data

The teacher has learned a lot and implemented this assistance, so that he is successful in participating in the National Seminar activities, namely the presentation of research results and the publication of scientific articles. Information from

participants during the first meeting when asked whether they had material for scientific writing, most of the participants already had class action research reports or results study simple student. This aligned with Mulyatiningsih (2015) stated article scientific could written from results teacher observation in class or results test student. However, the teachers have not been trained to write reports on the results of classroom action research into a scientific manuscript that is ready to be sent to scientific journals. In addition, Farisi et al., (2017) wrote facts about teachers, one of which is the teacher's perception of the publication of scientific articles in scientific journals. Teachers have the perception that publishing scientific articles in scientific journals is very difficult and even something teachers avoid. The research results of Wahid's (2021) show that the age factor influences the teacher's ability to write scientifically. Teachers over the age of 50 have more difficulty writing scientific articles than those aged 30-40 years. Meanwhile, teachers at a younger age are not required to write and publish scientific articles so that good regeneration does not occur and the same problems will recur. Therefore, it is necessary to encourage young teachers to be able to engage senior teachers to be active in writing, so that the scientific repertoire in writing scientific papers can be properly developed at school. Furthermore, the increase in teacher literacy would impact achieving the target for SDGs, especially in the quality of education in Indonesia.

## CONCLUSION

The conclusion from the results of this service is that the teacher's enthusiasm and motivation in participating in the socialization of writing scientific articles is quite high. The teacher's knowledge of scientific articles and the stages of writing increases after mentoring. There were five articles that were successfully published in the national proceedings as the output of this activity. Suggestions for similar service activities in the future; It is better to form a driving force teacher who is given an Assignment Letter by the Principal. The driving teacher has the criteria of being young, has the highest motivation in writing, so that scientific article writing activities can continue to be carried out well after the end of the service program.

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