Improving the Scientific Writing Ability of Muhammadiyah Boarding School Jombang Teachers

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ABSTRACT


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BACKGROUND

Junior High School of Muhammadiyah Boarding School Jombang (JHS of MBS Jombang) is one of Muhammadiyah's charitable efforts under the auspices of the Muhammadiyah Regional Leadership Council of Jombang Regency, East Java. Principal of JHS of MBS Jombang, Mr Imam Fauzi Rahman S.Pd.Gr said that this school was founded in 2014 and continues to experience significant development. Initially, the number of students/Santri was only 9, but now it has reached more than 250 people.
The progress achieved by SMP Jombang MBS so that it can be known and trusted by the community is because all teachers and other educational staff are committed, always united, and support each other in all activities at school and the boarding school. All MBS Jombang Middle School students must become students at the boarding school so that school and boarding school programs can be implemented well. Each of the 50 students is accompanied by a musrif or musrifah (homeroom teacher) tasked with looking after and providing comfort to the students for 24 hours so that they feel at home in the boarding school.

Many JHS of MBS Jombang students have achieved achievements, for example, at the Muhammadiyah Education Award level. This is thanks to the education of the teachers. However, the principal said that the abilities of the 22 teachers were still weak regarding research and publications, especially regarding scientific research and writing competitions. This condition is indeed a challenge for the world of education in Indonesia, which shows the very weak scientific literacy of teachers (Atika et al., 2019; Darmono, 2022; Dwiyanti & Rahayuni, 2019; Muhajir et al., 2021; Nurhanifah & Diah Utami, 2023; Rabuudin, 2023; Ramlawati et al., 2022; Shofiyah, 2022; Susiati et al., 2018). Therefore, the Principal JHS of MBS Jombang hopes for attention from universities. The head of JHS of MBS, Jombang, is an alumnus of the Department of Biology Education FTTE-UMM. He expressed his hopes and requests several times for guidance and capacity building from UMM.

Research and publication are very important for teachers because they are professional demands (Bachtar & Nurocmah, 2021; Milla & Bili, 2022; Mujiwati et al., 2017; Pahar, 2021). For teacher career development and to keep learning, teachers need to have the ability to carry out CAR, research in general, best practices, and publications. This often becomes an obstacle for teachers in developing themselves, self-actualization, or promotion because of the low ability and interest in writing among teachers. Apart from being a requirement for teacher career development, writing is also a means for a teacher's self-development and school branding, including school excellence (Mulyan et al., 2022).

This community service has important value and contribution because it is a special request from partners to motivate teachers to achieve scientific achievements (Muhalisiah et al., 2023). Scientific writing skills need to be part of what is encouraged by school principals (Ampry et al., 2022). This ability is important for teachers to have, in addition to other professional abilities, such as the use of learning media (Alfina et al., 2022; Amalia et al., 2023; Wulandari et al., 2022) and the use of learning models (Adu & Cendana, 2022; Idris et al., 2022).

This service aims to develop the scientific writing skills of JHS of MBS Jombang teachers. This article describes the results of coaching activities to improve the scientific writing skills of JHS of MBS Jombang teachers. This activity contributes to increasing the profile of Muhammadiyah schools, a continuation of siding with Muhammadiyah, after previously the Community Service team from the Department of Biology Education FTTE-UMM focused on developing students at SHS Muhammadiyah 1 Malang (Husamah et al., 2022), strengthening lesson study at JHS of Muhammadiyah 1 Malang (Miharja et al., 2020), strengthening Adiwiyata schools/green school (Permana & Fatmawati, 2020), and development of science learning tools (Hudha et al., 2011). Especially for JHS of MBS Jombang, their main need is to improve the scientific writing skills of JHS of MBS Jombang teachers. Thus, this activity has a real contribution to increasing the abilities and competencies of teachers in terms of scientific writing skills, which, of course, will impact their professionalism.
METHOD

Problem-Solving Methods

The form of this activity is in the form of training and mentoring. Training is used for activities that involve counseling about the substance of the activity accompanied by demonstrations or demonstrations for its realization, group formation, and direct practice. Mentoring is carried out to ensure teachers practice the theory conveyed, minimize obstacles, and produce products in the form of scientific work. The participants in this activity were all 25 teachers (ustadz/ustadzah) at JHS OF MBS Jombang.

Location, Form of Partner Participation, and Duration of Activities

The activity was carried out at JHS of MBS Jombang, located at Jl. Sawunggaling Gg. 5, Mojoanyar Hamlet, Mojotengah Village, Bareng District, Jombang Regency, East Java Province. The location of the activity is presented in Figure 1.

![Figure 1. Activity location: JHS of MBS Jombang, East Java](image)

The forms of partner participation, namely JHS of MBS Jombang, are providing space and training facilities, sharing food supplies, providing correspondence, and, with the team, preparing a proposal. The school will also work with the team to develop and train teachers to produce work. Activities held in June-October 2023.

Data collection technique

The data in this activity is quantitative (the number of participants present) and qualitative data (the meaning of the products produced by the teachers/activity participants). Apart from that, the activity data is in the form of photos or documentation of activities the team will describe.

Data analysis technique

The data obtained was analyzed descriptively. The measures for the success of this activity are (1) the number of participants who take part in the activity is more than 85%, and (2) the production of rich writing involving a minimum of 85% of participants/teachers. Having a product is a guarantee that participants master the science and technology that has been conveyed by the community service team and can apply it in real terms.
RESULTS AND DISCUSSION

Re-discussion with the Principal and Deputy Principal

The team held another discussion with the Principal and Deputy Principal of JHS of MBS Jombang to re-equalize perceptions about the problem, efforts to solve the problem, and the urgency of this activity for the school. Next, the plan for the activity stages will be explained, and the agreed time for carrying out activities involving teachers will be explained (Figure 2).

![Figure 2. Discussion activities with the Principal and Deputy principal of JHS of MBS Jombang, East Java](image)

![Figure 3. Scientific Writing Training](image)

Based on the discussion results, information was obtained that JHS of MBS Jombang teachers had problems carrying out CAR, general research, best practices, and publications. This often becomes an obstacle for teachers in self-development, self-actualization, efforts to improve school performance, or advancement in rank because of the low ability and interest in writing among teachers. Many experts and researchers have emphasized that apart from being a requirement for teacher career development, writing is also a means for a teacher’s self-development and school branding, including school excellence. It is clear that supporting teachers’ research literacy is critical in promoting professional practice integrated with research, but this remains an area in dire need of development and mentoring (Evans et al., 2017).

This stage does not have significant obstacles because communication with the school is intense. Good relationships with schools and teachers support this. The special factor is that the principal is a UMM alumnus, so communication becomes very easy. The obstacle that may be faced is the distance factor, so it requires precise calculations of time and transportation.

Training

After reaching an agreement regarding the time and technical aspects of the activity, the first activity that will be carried out is mentoring training for teachers. Training activities are carried out with the hope that all teachers can be involved in this activity because all teachers have the potential to become researchers and writers. All teachers followed this style from the beginning of the event until its closing. Thus, the participation percentage is 100%.

In this training activity, the community service team delivered material on identifying problems for writing scientific papers, searching for appropriate references, and compiling scientific work reports (in article form). This activity is in line with the previous suggestion from the community service team that community service activities regarding scientific writing need to begin with providing material to strengthen teachers’ insight (Abrar et al., 2021), which is generally packaged in the form of a workshop (Ardiansyah et al., 2022; Paimun, 2020).
1. Identify problems for writing scientific papers.

Research is considered important and can be carried out if there are research problems. A problem is a situation where a fact that occurs has deviated from the expected tolerance limits. A research problem can also be interpreted as a problem or gap that might lead researchers to seek answers or solutions. This gap raises further questions, namely why the gap occurs, and research problems can be developed from this question. The next question is, can each gap be developed into a research problem? The answer turns out to be not all of them. Other conditions need to be met. From the description above, it can be concluded that there is a certain problematic condition, which indicates that research can be developed (Mahdiyah, 2015). This is what teachers need to strengthen so that they have the appropriate knowledge and skills.

2. Look for appropriate references.

The skill of finding references is very important, and usually, this is one of the weaknesses of teachers, especially when it comes to scientific journals. Journals are often used to find references because of their concise flow and more diverse and up-to-date topics. But unfortunately, sometimes, there are several topics that national journals have not covered. An international journal could be the solution if the required topic cannot be found in a national journal. Before proceeding to how to search for international journals on Google Scholar and DOAJ, there are features on Google Scholar/DOAJ that you need, such as the following: (1) Provides literature from various fields of science; (2) making it easier for users to get references; (3) Provide full-text documents or articles; (4) Make it possible to keep up with the latest developments or research issues; and (5) Can be used to check works cited View full-text documents or articles (Ridwan Institute, 2021).

3. Prepare a scientific report.

A CAR report is a formal statement about the research results or anything that requires definite information from a person or body that is ordered or required to do so. There are several types of reports, for example, School Reports, Practical Results Reports, and Laboratory Test Results. Meanwhile, the CAR report is a type of report with a higher presentation. The CAR results report is written systematically based on classroom action research carried out by the teacher in his class. A simple report aims to record, inform, and recommend research results. Therefore, the PTK report is written because it is a document that can be used as a reference and can be known by the public, especially by teachers who may experience the same problems as those reported (Slameto, 2016).

Meanwhile, best practice is a teacher's written work containing the best learning experiences. The Best Practice content framework is as stated in Appendix 5b. (Ministry of Education and Culture Directorate General of Teachers and Education Personnel, 2016: 26-27). Best practice is not always synonymous with big and "revolutionary" steps educators and educational staff take to solve problems. Still, it can also be done through small steps, implementing problem-solving alternatives that are simple but effective and whose impact is felt by the school. The main characteristic of Best Practice is tactical and practical actions to overcome the problems faced (Santoso et al., 2020).

None of these stages encountered significant obstacles or difficulties. Participants were involved seriously and enthusiastically. An obstacle that may be encountered is that there are other tasks that teachers must carry out so that their concentration and focus become divided. However, we provide encouragement and flexibility.

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Assistance with publications

The team assists teachers in finding problems, writing proposals, conducting research, and publishing. Activities can be done offline and online. All teachers attended this mentoring activity, and participation reached 100%.

Table 1. Scientific paper produced by JHS of MBS Jombang

<table>
<thead>
<tr>
<th>No</th>
<th>Title</th>
<th>Number of Teachers involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Improving student learning outcomes using the problem-based learning model in science learning material on inheritance of traits at JHS of MBS Jombang</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Improving the learning outcomes process of Islamic religious education through MMCS (Mind Mapping And Corporate Script) Class VIII JHS of MBS Jombang</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Implementation of the STAD (Student Teams Achievement Division) type cooperative learning method in PAI lessons at JHS of MBS Jombang</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Increasing numeracy literacy skills through learning based on the 5E learning cycle (engagement, exploration, explanation, elaboration, evaluation)</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Development of mobile game-based mathematics learning media to improve learning outcomes and active participation</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Efforts to increase students’ interest in learning in Pancasila and citizenship education subjects using class 9 word wall learning media at JHS of MBS Jombang</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Increasing learning outcomes in Islamic religious education subjects using the TGT type cooperative learning model in class IX-D of JHS of MBS Jombang application of the jigsaw-type cooperative learning method in Indonesian language</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Learning to increase creativity and understanding of class 9D students at JHS of MBS Jombang</td>
<td>4</td>
</tr>
</tbody>
</table>

Compiling scientific papers is one of the professional demands for a teacher, but not all teachers have the ability to compose scientific papers well, one of which is in the form of scientific articles (Suhardi & Gunawan, 2021; Sumiati et al., 2022). Compiling scientific papers needs to be continuously pursued because almost all teachers need this ability to support their careers, promote school excellence, improve quality, and promote. (Ekawarna & Salam, 2020; Thoharudin et al., 2021). Assistance is needed to emphasize practices based on teacher requirements and needs (Hamidsyukrie et al., 2020). This assistance is equivalent to technical guidance activities in writing scientific papers, which can provide knowledge, insight, and skills to teachers in writing scientific papers based on reports on the results of CAR (Mediatati & Jati, 2023).

Based on the results of intensive mentoring, the teachers produced eight manuscripts to be presented at a national seminar (the Department of Biology Education FTTE-UMM held the seminar on November 4, 2023). Based on Table 1, all MBS Jombang Middle School teachers are involved in writing scientific papers. Interestingly, even teachers are involved in more than one work. This shows the success of mentoring and the high teacher motivation to work. Motivation is key to encouraging teachers to write scientific papers (Sriwahyuni, 2022). The causes of low teacher motivation in writing scientific papers are generally factors within the teacher (internal) and outside the teacher (external). Stimulus, assistance, and motivation from external parties are needed to improve teachers’ writing motivation (Zainuddin et al., 2023). Service and mentoring carried out well and seriously (intensely) can generally strengthen teachers’ motivation in writing scientific papers. They can improve teachers’ abilities to conduct research and write research reports (Tagela & Sanoto, 2021).
Continuity of the program in the field after the activities are completed

After the activities are completed, the program's sustainability in the field can be guaranteed by forming a community of active teachers conducting research and publications. The service team is also committed to continuing to help, considering that this is part of the Memorandum of Understanding (MoU) between FTTE-UMM and JHS of MBS Jombang. To ensure the sustainability of school programs and development, we have entered into a MoU between the school and FTTE-UMM—documentation of the symbolic handover of the MoU, as presented in Figure 5.

We have also provided recommendations to the Directorate of Research and Community Service at UMM to make JHS of MBS Jombang one of the partners. As an initial implementation, this service involves students participating in the Student Community Service program for one month. With permission from the Directorate of Research and Community Service of UMM, the service team became supervisors, helped direct the preparation of proposals, and assisted with operational funds.

The sustainability of this program will create an academic community that cares about and helps the programs that the institution has established. Program sustainability will be realized in the form of creative and sustainable activities. Sustainability is important to ensure that good examples or good practices can continue to be perceived by institutions and can even become excellence (Ashoumi & Hariono, 2022; Wahyu Rahmadania, 2023; Yulia et al., 2023; Yunus & Hamim, 2020).

CONCLUSION

Community service activities for target partners in the form of JHS of MBS Jombang teachers were achieved very well (100%). This is demonstrated by the participation of 100% of teachers in all activities and the implementation of all planned activities (re-discussions with deputy principals, training, mentoring, and program sustainability). The teachers have produced eight scientific works, which will be presented at the National Seminar organized by the Department of Biology Education FTTE-UMM and published in the proceedings. Teachers' achievements in producing scientific works and participating in national seminars must be informed to the public. Therefore, community service can also be focused on school branding (scientific branding: school scientific achievements) in the form of news in the media (social media and other online media).
ACKNOWLEDGEMENT

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