



## Teacher Professionalism Development: Scientific Writing Training for Teachers in Madiun

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### Abstrak

Penulisan karya ilmiah merupakan kegiatan yang sangat penting bagi seorang guru yang profesional serta kompeten pada bidangnya. Kegiatan ini dilakukan tidak hanya untuk memperoleh angka kredit kenaikan jabatan atau untuk keperluan akreditasi tetapi yang lebih besar adalah untuk peningkatan profesionalisme guru. Tujuan kegiatan ini adalah untuk mendampingi guru-guru di wilayah kab. Madiun dalam meningkatkan kemampuan profesionalisme guru dengan dihasilkannya publikasi karya ilmiah berdasarkan hasil penyusunan PTK. Kegiatan dilaksanakan Pelaksanaan kegiatan dilakukan terpisah untuk masing-masing guru dengan jenjang pendidikan berbeda. Pelatihan dilaksanakan dengan terencana sehingga menunjang tujuan yang ditetapkan. Secara rinci rangkaian kegiatan dijabarkan sebagai berikut: 1. Koordinasi Tim PkM FKIP UNIPMA dengan Dinas Pendidikan Kabupaten Madiun; 2. Dinas menurunkan surat tugas kepada panitia yang ditunjuk dan nara sumber serta menentukan tanggal kegiatan pada masing-masing jenjang; 3. Panitia menyiapkan kebutuhan administrasi (surat menyurat, presensi), tempat kegiatan, menghubungi nara sumber dan menyediakan perangkat pendukung untuk menunjang kegiatan; 4. Nara sumber melaksanakan kegiatan sesuai ketentuan. Berdasarkan hasil pendampingan diperoleh karya ilmiah dari 60 peserta di setiap jenjang pendidikan TK, SD dan SMP telah diberikan rekomendasi oleh tim untuk dilanjutkan pada publikasi ilmiah. Seluruh peserta menghasilkan PTK dan artikel ilmiah. Sebesar 20% dari total artikel ilmiah telah terpublikasi pada jurnal ilmiah.

**Kata Kunci:** Pelatihan, Guru, Artikel Ilmiah

### Abstract

Writing scientific papers is a very important activity for a professional and competent teacher in their field. This activity does not only need to be carried out in order to obtain credit scores for promotions or for accreditation purposes, but also to increase the professionalism of teachers. The purpose of this activity is to assist teachers in the district Madiun in improving the professionalism of teachers by producing scientific publications based on the results of the preparation of CAR. The implementation of activities is carried out separately for each teacher with different educational levels. The training is carried out in a planned manner so as to support the goals set. In detail, the series of activities are described as follows: 1. Coordination of the community service team of FKIP UNIPMA with the Education Office of Madiun Regency; 2. The office sends a letter of assignment to the appointed committee and resource persons and determines the date of activities at each level; 3. The committee prepares administrative needs (correspondence, attendance), place of activity, contacting resource persons and providing supporting equipment to support activities; 4. Resource persons carry out activities according to the provisions. Based on the results of the mentoring, scientific papers from 60 participants at every level of kindergarten, elementary and junior high school education have been given recommendations by the team to be continued in scientific publications. All participants produced CAR and scientific articles. 20% of the total scientific articles have been published in scientific journals.

**Keywords:** Training, Teacher, Scientific Articles

## 1. INTRODUCTION

One of the ways to become a professional educator is to improve the ability to observe learning conditions in the classroom, find problems and then develop problem

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solving (Hawari & Noor, 2020; Ryve et al., 2013; Tsakeni, 2021). Activities in the form of repeated cycles can be written in the form of scientific papers which are commonly referred to as Classroom Action Research (CAR) (Fatimatuzahroh et al., 2019; Sekarwati, 2020; Suarni, 2017). The activity of writing scientific papers which are then published requires practice, habits and a supportive environment so that teaching teachers, especially elementary schools, are able to arrange them well (Gunawan et al., 2018; Kasiyan et al., 2019; Malik et al., 2021). The large number of teaching staff at the SD level at the Education and Culture Office of Madiun Regency is an asset of human resources that still really needs to be developed, so that they are able to support and encourage the progress of education at the primary and secondary levels (Baharuddin et al., 2019; Heggart & Yoo, 2018; Martí et al., 2022). Based on existing data, it shows that the ability of teachers in compiling CAR based on class conditions is still relatively low.

Scientific articles are a form of scientific publication as a competency that must be possessed by teachers. A scientific article is an article that is sourced from a research report with a view to publication in a scientific journal (Brotowidjoyo, 2002; Cargill & O'Connor, 2021). Scientific articles are scientific works that present general facts and are written according to a good and correct writing methodology intended to be published in scientific magazines in a manner according to predetermined regulations (Abrahams & Reiss, 2012; Malik et al., 2021).

The most practical source of scientific work for teachers is the result of research based on classroom learning practices which are the main activities in schools or what is called classroom action research (CAR). CAR Classroom Action Research is a reflective process in which teachers collect empirical data, to improve their teaching practice (Raehan et al., 2020; Sholihah & Lastariwati, 2020; Utari & Mustikawati, 2017). Teachers use available data from their classrooms to answer practical questions about teaching and learning in the classroom (Clark et al., 2020; Fatimatuzahroh et al., 2019; Soedimardjono & Pratiwi, 2021). CAR provides an opportunity for educators to reflect and evaluate the learning that has been done. Therefore, it is one of the right things if CAR is used to improve the quality of education, especially the quality of learning in the classroom. Scientific work is one of the professional abilities that teachers must have (Berland et al., 2016; Ferreira & Morais, 2020; Ješková et al., 2018). Various research results that analyze the level of teacher ability in writing scientific papers are elements of teacher activity and professionalism which show the lowest component among other elements contained in the PANRB Ministerial Regulation Number 16 of 2009, both quantitatively and qualitatively. (Caswita, 2020; Malik et al., 2021; Noorjannah, 2014; Pardede & Ariga, 2018; Sodiq et al., 2014).

In fact, teachers who currently occupy positions and ranks are still limited in their ability to write scientific articles. Several observations and interviews with teachers when providing training related to scientific publications provide clarity as to why teachers are not yet able, willing, and accustomed to writing scientifically (Kasiyan et al., 2019; Noorjannah, 2014). The causes of the low ability of teachers to write scientific papers, namely: (1) lack of knowledge, understanding, and skills of teachers in writing scientific papers, especially writing scientific articles, (2) limited scientific reading facilities, especially in the form of scientific magazines or journals and do not know how can access these scientific reading materials, (3) there are no magazines or journals available in the school environment, district/city education offices that can accommodate the writings of teachers, (4) there are still limited holding of scientific writing competitions organized by the education office both at the national level, at the provincial and district levels, and (5) the low motivation of teachers to participate in scientific writing competitions.

The results of special observations made at the district education office in Madiun. The number of publications of scientific articles written by teachers ranging from

kindergarten to high school teachers especially those in the Madiun Regency area is still very low. Even scientific works in national journals that have not been accredited though. One of the most necessary efforts to overcome these deficiencies is through training activities on writing scientific papers effectively, efficiently, and producing concrete outcomes. Therefore, in line with the implementation of the Ministry of Education and Culture Research and Technology MBKM program, it is very necessary to conduct training activities for writing scientific papers in the form of scientific articles for teachers in Madiun Regency. This training activity aims to improve the ability of teachers to observe learning problems in class and find solutions, improve scientific writing skills for teachers in the Madiun District Education Office, produce one draft CAR from each participant, and increase the number of publications on the results of the preparation of CAR by teachers in Madiun Regency.

## 2. METHODS

The training activities were carried out for 32 hours of activity in 3 days. The implementation of activities is carried out separately for each teacher with a different education level. The training is carried out in a planned manner so as to support the goals set. In detail, the series of activities are described as follows: 1. Coordination of the UNIPMA FKIP Community Service Team with the Madiun District Education Office; 2. The office sends a letter of assignment to the appointed committee and resource persons and determines the date of activities at each level; 3. The committee prepares administrative needs (correspondence, attendance), place of activity, contacting resource persons and providing supporting equipment to support activities; 4. Resource persons carry out activities according to the provisions. 5. Participants participated in the entire series of activities well, including doing the task of compiling CAR.

## 3. RESULTS AND DISCUSSION

### Results

#### *Training with Kindergarten Teacher Participants*

Activities for compiling scientific publications in the form of book chapters for kindergarten teachers. There were 20 participants who took part in the preparation of book chapters from the Kindergarten level. Each kindergarten teacher compiles a book chapter in accordance with the activities that have been carried out in his class or school. Participants collect their assignments on a google drive link that has been prepared by the team. The activities is show in [Figure 1](#).



**Figure 1.** Kindergarten Teacher Participants in Scientific Writing Training Activities

Based on Figure 1, participants participated in the whole series of activities with enthusiasm and enthusiasm. The results of daily reflection based on the activities carried out show that teachers feel they have gained new knowledge, especially about how to write scientific publications in the form of book chapters. In terms of content, the average teacher already has the provisions to be poured in written form. However, technically, such as the ability to compose writing, understand the form of writing according to the template, arrangement and adjustment of content with previous references, it is still weak. The results of the book chapter will be compiled in the form of an ISBN book which is currently still in the confirmation stage with the participants due to the printing costs for the book. While the cover layout that has been prepared is show in Figure 2.



Figure 2. Cover Page of Book Elementary School Teachers in Scientific Writing Training Activities

#### Training with Elementary Teacher Participants

There were 20 participants who took part in the preparation of publications from the elementary school level. Each elementary school teacher prepares CAR results for plans for scientific publications that have been implemented in their class or school. For three days the elementary school teachers practiced to compile the CAR reports that had been implemented into draft articles for publication. These teachers are also equipped with Mendelay exercises to make it easier to compile references from draft articles. The activity of scientific writing training activities of elementary school teacher is show in Figure 3.

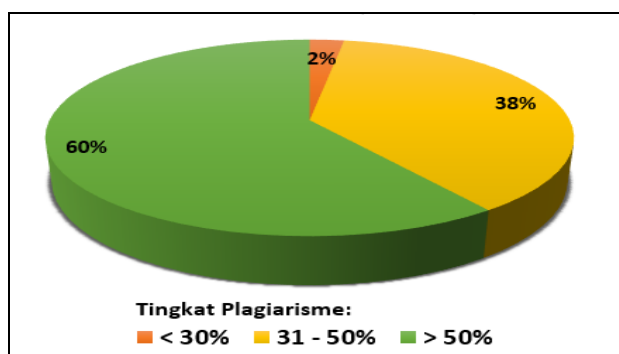


Figure 3. Elementary School Teacher Participants in Scientific Writing Training Activities



The results of reflections carried out after each activity session, the results showed that the teachers found it helpful to change the report form into a draft publication article. This is felt to increase the added value and improve the quality of the professionalism of each teacher. In addition, teachers also gain a new understanding of technological literacy by using the Mendelay software. The data from the draft articles produced by each teacher was carried out by the Turnitin test to determine the level of plagiarism. Turnitin's data shows that the level of plagiarism of participants' scientific articles is still high. Only 2% of training participants' articles have a plagiarism rate below 30%. The distribution of plagiarism levels of scientific articles by elementary school teacher participants can be seen in [Figure 4](#). This condition shows that teachers still need practice as a habit to compose paraphrases from quotes in reference sentences.



**Figure 4.** The Level of Plagiarism of Scientific Articles for Elementary School Teachers Participating in the Training

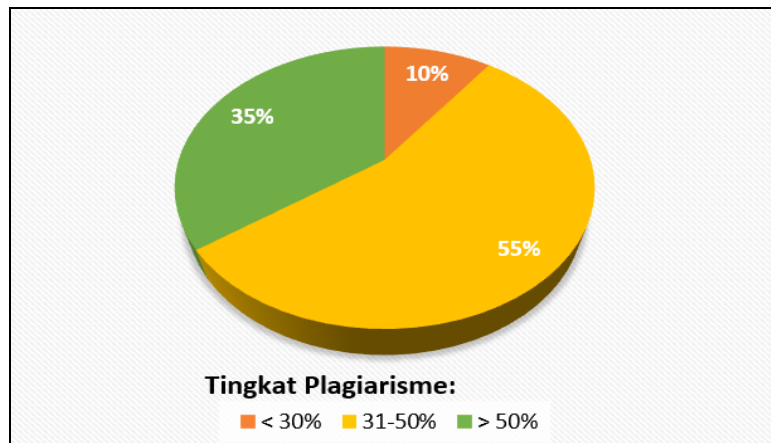
#### *Training with Junior High School Teacher Participants*

There were 20 participants who took part in the preparation of book chapters from the junior high school level. Each junior high school teacher prepares draft articles based on CAR activities that have been carried out in their class or school. Based on the results of reflections carried out after each activity session, the results showed that the teachers found it helpful to change the report form into a draft publication article. This increases the added value and enhances the professional quality of each teacher. In addition, teachers also gain new understanding regarding technological literacy by using delay-based software. The activity of scientific writing training activities of junior high school teacher is show in [Figure 5](#).



**Figure 5.** The Instructor is Providing Assistance to Junior High School Teacher Participants in the Scientific Writing Training Activity

In the following, several articles from 40 articles of junior high school teacher participants are presented as an outcome of the training activities. The data from the draft articles produced by each teacher was carried out by the Turnitin test to determine the level of plagiarism. Only 10% of training participants' articles had a plagiarism rate below 30%, higher than that of elementary school teachers. The distribution of plagiarism levels of scientific articles by elementary school teacher participants can be seen in Figure 6. This condition shows that teachers still need practice as a habit to compose paraphrases from quotes in reference sentences.



**Figure 6.** The Level of Plagiarism of Scientific Articles for Junior High School Teachers Participating in the Training

## Discussion

To support the achievement of professionalism, teachers need complete and sustainable professional coaching and development. One of the promising efforts for the professional development of teachers is conducting scientific publications (Caswita, 2020; Safitri et al., 2019; Sodiq et al., 2014). Regarding the importance of scientific publications for educators, this has even become a policy affirmed in the Regulation of the Minister for Empowerment of State Apparatus and Bureaucratic Reform Number 16 of 2009, which regulates the Functional Positions of Teachers and their Credit Scores. Apart from the main elements of teaching activities, teachers must also fulfill the elements of professional development through the publication of scientific activities or innovative works (Akuma & Callaghan, 2019; Muhsinah Annisa, Hariyanti Hamid, 2016; Stehle & Peters-Burton, 2019). Teachers who will be promoted must collect credit points from scientific publications or innovative works as follows: To be promoted from III/b to III/c 4 points, III/c dke III/d 6 points, III/d to IV/a as much as 8 points. Meanwhile, teachers who are promoted from IV/a to IV/b must collect a credit score of 10 points (Bayar, 2014; Kasiyan et al., 2019; Kutluca, 2021).

Some of the more basic arguments, why teachers should have the ability to write. First, the world of teachers is the world of literacy: reading, writing, and teaching. A teacher who is able to write well is a good reader and listener (Gunawan et al., 2018; Norahmi, 2017; Rusilowati & Wahyudi, 2020). The author's teacher has renewable knowledge so that he will have more potential to appear as a true professional teacher. Second, the position and role of the teacher as an educator is not only for the students at school, but also for the community in a broad sense. Third, writing is an arena or medium for sharing ideas, which is very important for the development of science and culture (Praheto et al., 2020; Prince & Frith, 2020; Sumartini et al., 2019).

It is in line with previous study that aims to describe the implementation of scientific paper writing training for teacher in MAN 2 Banjarmasin (Mutiani & Putra, 2020). The results of the service were presented that writing scientific papers, writers must understand the stages of work; first, make ideas in thought. This idea emerged from the reference book, as well as the results of discussions with colleagues. Second, the writer must express his ideas in narrative form (writing). The work process between stages one and two varies greatly for each author. This matter is influenced by experience and habits. It also reinforce by other previous study This research is an empowerment of the potential of vocational school teachers in the form of scientific writing to function as a vehicle for communication and dissemination of works and ideas for teachers or others (Rosa, 2020). The results of the study is the realization of birth of human resources (teachers) in vocational schools, especially in Bandung in writing web-based scientific research and digitizing in Management of Multicultural Education with Strengthening Education and National Identity in an integrated manner in line with the development of the Industrial Revolutionary Era and society.

This service activity is arguably successful and produces great benefits for the progress of educators, especially teachers in the Medan district. The participants of this study consisted of teachers from various school levels from Kindergarten, Elementary, to Middle School to be given training on scientific writing. This research also directly shows the progress of teachers after the training as evidenced by the success of making scientific writing designs and passing the results of the plagiarism test. However, this research activity is far from perfect because there is no continuous step to continuously monitor whether teachers will continue to develop their writing skills.

#### 4. CONCLUSION

Scientific publication training activities for kindergarten, elementary, and junior high school teachers in the form of draft articles went smoothly. Participants participated in the activity well and produced outcomes in the form of draft book chapters (kindergarten teachers) and drafts of scientific articles (elementary and junior high school teachers). Based on the results of the mentoring, scientific papers were obtained from 60 participants at every level of kindergarten, elementary and junior high school education to be published in recommended national journals. All participants produced CAR and scientific articles. 20% of the total scientific articles have been published in scientific journals.

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