## Mentoring Program on Conducting Research and Writing Scientific Papers for Civil Servant Teachers

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#### Abstract:

Teachers with the status of civil servants have to write scientific papers for promotion. It is relatively complex for them since they are not used to conducting research or writing research articles to be published in a scientific journal. Therefore, this service was accomplished to assist teachers in carrying out research in their madrasahs and writing scientific papers to be published. The service method employed was Participatory Action Research (PAR) with the approach including 1) Lecturing, 2) Workshop, 3) Review, 4) Action Plan, and 5) Seminar. Furthermore, the objects of mentoring activities were 20 civil servant teachers at private madrasahs in Semarang City. The results of this activity were that teachers could write proposals, carry out research in the classroom, and report the findings in journal articles. Overall, assisted teachers had a 'sensitivity' in recognizing problems in the classroom and analyzing them. Their self-confidence as professional educators developed with the rise of awareness in writing research articles.

Keywords: Teacher; research; scientific papers.

#### Background

The progress in science and technology in the 21<sup>st</sup> century brings many changes that significantly influence human lives in all fields, including education, which is an essential aspect of improving the quality of human resources and creating a better nation's future (Pratama, Sulaiman, & Soegiyanto, 2021). Education has a significant role in realizing the pillars of society. Thus, it is always required to be

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relevant to change (Baharuddin & Makin, 2002). A country without adequate and quality education will leave its society behind others.

Law No. 20 of 2003 on the National Education System was applied to expose the existence of good quality education. In this regard, there are various ways to improve education, such as increasing the qualifications of educators and other educational staff, providing some training and instruction, and giving opportunities to solve learning and non-learning problems professionally through research (Chasanah et al., 2021). Teachers are education subjects with a critical role in enhancing the quality of education. Consequently, the demand for them as professionals in education needs concrete affirmation. Law Number 14 of 2005 article 8 explains that teachers must master four competencies: pedagogical competence, personality competence, social competence, and professional competence. The profession of educators becomes complex due to changes in the school environment and community (Yusantika, 2020).

The competence of teachers in the 21<sup>st</sup> century is not only based on the law but must also provide solutions to issues of revolution. Hence, qualified teachers have a vital role in education (Kaleka et al., 2020). The learning process is good if the professionalism of teachers with good competence and performance in education supports it. Teachers' performance in schools is indicated by the ability to educate, teach, train, guide, assess, and evaluate students (Narsih, 2017). Abdillah (2020) states that the improvement and development of teachers' professional abilities comprise various aspects: mastering the curriculum and teaching materials, utilizing methods and facilities in the teaching and learning process, assessing learning processes and outcomes, involving the environment as a learning resource, and being disciplined and committed to all tasks.

A teacher is required to contribute to knowledge and society through research and service activity (Pratama et al., 2021). It is a form of solution for teachers to play a role in solving problems in learning. Nonetheless, they barely conduct scientific research nowadays because they think it is complicated and potentially breaks their self-confidence and ability (Yusantika, 2020). Therefore, every teacher must constantly improve professionalism in promoting good quality education. As the driving force of education, teachers have a crucial role in managing the learning process, making the ability to write scientific papers required (Warsiyah et al., 2022). One of the essential indicators that need to be met to improve the professionalism of teachers is to compose scientific research results about education. The skill of writing scientific papers, especially research, is crucial for teachers. Chasanah et al. (2021) state that the rules for teachers' promotion are writing a scientific paper and making reports on research results. However, teachers' productivity in writing scientific papers is still low (Kamarudin & Pahar, 2021).

Kamarudin and Pahar (2021) reveal that the inability of teachers to write scientific papers or research was up to 99.37%. Based on data from the National Civil Service Agency in 2005, out of 1,461,124 teachers observed from their ranks, there were 22.87% of class IV/a, 0.16% of class IV/b, 0.006% of class IV/c, 0.001% of class IV/d, and 0.00% of class IV/e. This data demonstrates how low teachers' activity in writing scientific papers is in Indonesia. Most teachers cannot be promoted from IVa to Vb due to their incapability to write scientific papers, which is one of the main requirements (Sirodjuddin, 2008). This issue becomes intriguing because it occurs precisely in the teaching profession, which is supposed to be familiar with writing skills.

Based on those problems, it is necessary to conduct direct training and guidance for teachers to improve their ability to carry out scientific research. Classroom Action Research is an effort teachers can make to improve the quality of learning and teaching. It is functioned to provide solutions and improve student learning outcomes (Yusantika, 2020) because it is believed to enhance the professionalism of teachers as educators and researchers, leading to an improved quality of learning (Zainuddin et al., 2019). Karyono and

Mas'ud (2020) mention that the indicator of achieving pedagogical competence is conducting class action research and reporting it in scientific work. This activity can be accomplished by training to prepare the proposals of scientific papers for teachers.

The training provided included writing the proposal, preparing the instruments, and reporting the research results. In addition to training activities, teachers are motivated and guided to write a qualified scientific article. Meanwhile, the results of community service activities strengthening the teachers' competency by giving some software training, especially those related to statistics, showed a significant improvement (Khumaedi, 2016). The results of the research conducted by Kaleka et al. (2020) revealed that 16 teachers (80%) understood the techniques for compiling research proposals, and one of their works was published in an online journal. Another study on service in education by Zainuddin et al. (2019) concluded that those activities were generally practical and could run smoothly.

These classroom action research activities help teachers find solutions for the problems in the learning process and improve student learning outcomes. However, other studies argue that teachers need intensive assistance to increase motivation in conducting research (Chasanah et al., 2021) and improve their skills in writing scientific papers. Therefore, it is necessary to have a service program in schools accompanied by experts to enhance teachers' professionalism.

Based on this issue, this service program was directed to assist private madrasah teachers in Semarang City designing and implementing research and accompanying them in writing the research results into a journal article qualified for publication. Moreover, most assisted teachers have never attended training or workshops in writing scientific papers because they generally worked for private madrasahs that did not get attention from the government to develop their professionalism. Consequently, they did not have a good understanding and skills to design and carry out research, whereas some civil servant teachers must write scientific papers to be promoted.

### Method of Service

This community service activity employed the Participatory Action Research (PAR) method. The object of this mentoring activity was some teachers with civil servant status at private madrasahs in Semarang City. The programs of research assistance and scientific paper writing for civil servant teachers at private madrasahs in Semarang City were expected to increase teachers' professional competence significantly. The strategy of the Research Assistance Program and Writing Scientific Papers for Civil Servant Teachers at Private Madrasahs in Semarang City involved various methods: (1) Lecturing; (2) Workshops; (3) Reviews; (4) Action Plans; (5) Seminars.

#### **Results and Discussion**

Quality improvement is one of the focuses in the development of education today. Some teachers often face various obstacles in the learning process, whether related to methods, infrastructure (teaching aids), student management, etc. Therefore, they need to carry out concrete actions to find solutions to overcome those problems. In this context, Classroom Action Research is an action taken by teachers to improve learning and test the assumptions of educational theory in teaching practice or as a means to evaluate and apply all priorities in schools (Hopkins, 2008). This research is one of the systematic approaches to improving teaching practice to achieve learning objectives and answer one of the most fundamental educational questions (Pelton, 2010). In this case, action research is carried out to create professional teachers in the classroom, a conducive learning environment, active interaction with students, and to develop effective learning plans. Classroom action research is believed to be a real solution to the challenges of educating students, so teacher expertise and teaching skills are effectively indispensable.

The study results confirmed that classroom action research was essential to teachers' professional development because it could improve their competence in writing and recording (Koryati et al., 2019). In addition, to help solve the learning problems they face, teachers also get direct experience (from the planning stage to reporting). This service activity, namely a Research Assistance for civil servant teachers at Private Madrasahs in Semarang City, was a success by implementing the procedures and methods that had been developed. The steps of its implementation were as follows:

### 1. Implementation of Service Activities

The implementation of the service activities was divided into the following stages:

a. The First Stage

This stage was carried out at MTs Hidayatussibyan of Genuk, Semarang. The activity was divided into two sessions:

The first session was holding an official workshop by agreeing with the accompanying team from UIN Walisongo and assisted participants, civil servant teachers working in private MTs in Semarang City. On this occasion, teachers were required to make scientific papers based on research data as a requirement for promotion, especially from III/b to III/c, or IV/a. In this session, a 'need assessment' was also carried out by compiling a list of expectations for mentoring activities, including being able to write research proposals, conduct the research, compile the reports, and compose a journal manuscript. The activity was performed every Saturday after school hours or Sundays or every holiday. This session also established a mentoring program as a reference in implementing research program training covering several topics. In the first session, participants typically did not have enough understanding to research because most had never attended training or workshops related to research programs.

The second session included a workshop involving some material targets, namely basic research concepts, research methods in educational programs, research instruments, and processing research results. This session began with explaining the teacher's tasks and then continued with fulfilling the target to make all invited participants understand more deeply about research methods in the field of education. In short, they were equipped with pre-research instruments containing problem identification, problem analysis, problem formulation, and hypotheses.

b. The Stage of Action Plan

At this stage, participants must complete an 'action plan' task at their homes by identifying problems in each madrasah. They were asked to choose one of the problems in the class that was considered 'urgent' to be prioritized as a research topic and analyze the internal and external factors. Generally, participants chose the issues of learning achievement and student activity in the classroom. They must select one of the factors that were the leading cause of the problem so that they could compile research assumptions using relevant theories. Furthermore, researchers arranged concrete steps for applying the jigsaw method with image media in science learning by choosing one of the materials or Basic Competencies to compile learning instruments before conducting the research. The pre-research action plan steps can be seen in **Figure 1**.

# Figure 1.

Steps of action plan



c. The Stage of Pre-Research Seminary Discussion

This stage was executed at MTs Nurussibyan of Wonosari, Ngaliyan, Semarang. It started with a pre-research seminar in which each participant presented the results of the action plan that had been prepared. The seminar was divided into three groups, each guided by a companion. The output of this activity was the correct pre-research formulation to be the primary material in preparing the proposal. On the other hand, with pre-research, participants were facilitated in compiling proposals and carrying out their research.

d. The Stage of Workshop II: Preparing the Proposal

This stage was carried out after the preparation of the preresearch discussed in the seminar. This proposal preparation activity was carried out at MTs Assyarifah of Mijen, Semarang. In this activity, the accompanying team had a duty as a team teaching to explain the technique for preparing a research proposal. The workshop employed the 'lecturing' method with question and answer and recitation. The workshop materials prepared a research proposal with some essential parts: research title, background, research problems, goals and benefits, theoretical framework, research methods, research schedules, and bibliography. This activity aimed to deliver the teachers as masters in compiling research proposals.

## e. The Stage of Proposal Seminar

This proposal seminar activity was carried out at MTs Al-Hikmah of Polaman, Mijen, Semarang. In this activity, each assisted participant was allowed to present their proposal. Thus, the output was a correct and qualified research proposal. The participants refined their proposals by conducting a proposal seminar before carrying out the pre-research stage. However, not all of them could complete and disseminate their proposals due to the obstacles of busyness in the madrasahs. Some of the assisted participants were the principal of madrasahs. As a result, not all of them could work on the tasks assigned.

## f. The Stage of Conducting the Research

The research was carried out after participants completed the proposal seminar session and revised the proposal based on critics and suggestions from others. The implementation of the research was conducted in each madrasa, and they must prepare learning instruments integrated with the proposal. All research needs, starting from teaching materials, teaching plans consisting of methods and techniques, as well as observation and evaluation techniques and even instruments, were carefully prepared at the planning stage. Furthermore, participants implemented the learning process as an execution of all plans. On the other hand, at this stage, teachers also observed the implemented actions. With the presence of others in this study, the research became collaborative. However, outside observers should not get too deeply involved and intervene in the decision-making actions taken by researchers. Afterward, reflection on the implemented actions was carried out by processing the data obtained. The data were interpreted, explained, analyzed, and synthesized. In reviewing these data, researchers could invite outsiders as collaborators during observation. This reflection process was fundamental in determining a research's success. With a sharp and trusted reflection, valuable and accurate input could be obtained to determine the next action step.

### g. Reporting the Research Results

This stage was carried out after all research implementation was completed with data collection methods and teaching practices in each madrasa. The composition of this research report included a title, abstract, Chapter I (Introduction), Chapter II (Theoretical Framework), Chapter III (Methods), Chapter IV (Results and Discussion), and Chapter V (Conclusion and Bibliography).

The implementation of service activities in the research assistance program for civil servant teachers at Private Madrasah in Semarang City was carried out with the efforts of the Assistance Team to determine a formula to solve the teacher's problems, especially in the ability to compile Classroom Action Research. The accompanying team assessed that the teachers, especially those teaching in private madrasas, even though they were civil servants, they barely received attention from the government, namely the Ministry of Religious Affairs, to improve their competence. As for this program, in its realization, it could not be comprehensively conceded. Some of the shortcomings and obstacles were often encountered in the implementation of this program, including teachers who found it challenging to spend time participating in the program and writing journal articles. On several occasions, they could not participate in the program because of various teachers' tasks that must be done. Thus,

finding a pleasant day when all participants could join the program entirely was very difficult.

## 2. Achievement of Service Performance Results

The research assistance program for civil servant teachers at private madrasahs in Semarang City was oriented to increase teachers' understanding and skills in conducting classroom action research. Through various strategies such as workshops, seminars, action plans, and independent guidance, this mentoring program provided a new experience for teachers, especially in compiling proposals and carrying out research.

The research assistance program for civil servant teachers at private madrasahs in Semarang City could run well. Considering several indicators, the output of this activity could generally be detailed as follows: 1) Assisted participants had a 'sensitivity' to noticing problems in the classroom. It could be seen from their ability to identify problems to be involved as research objects. 2) Participants could analyze the scientific problems. It was confirmed by the ability to compile a pre-research, especially in formulating research assumptions. Generally, they could analyze the issues of their research topic. 3) Assisted participants could solve problems in the classroom. It was reflected by their ability to accomplish research projects. Research by assisted participants strived to systematically and scientifically discover a solution to some learning problems. 4) The creativity of assisted participants in developing innovative learning. It could be recognized by the title of the proposal, which was compiled by applying various active methods, such as Jigsaw, Inquiry, Gallery Walk, STAD, etc. 5) Awareness to develop an academic culture in madrasas. Through this activity, the assisted participants were familiarized with developing academic activities through reading, writing, discussion, and seminars. 6) Self-confidence as a professional teacher. Determining the problems and arranging procedures and scientific approaches could provide experience for participants to build a professional mindset in carrying out their duties. 7) Growing awareness of writing and conducting research among madrasa teachers. Through this research training assistance program, participants became aware or interested in publishing their research results to improve the quality of madrasah education.

### 3. Analysis of Service Problems

As it was drawn up and confirmed to the assisted participants, the mentoring plan had not been thoroughly worked or fulfilled. Many obstacles were encountered in implementing the mentoring program, including 1) Low discipline of assisted participants. In preparing and writing a 'commitment letter', there were 30 participants who seemed enthusiastic to take part in the activity. However, during the process, they began to show inconsistencies in participating in the program. Some participants did not complete the tasks, action plans, and preresearch. Moreover, not all of them could attend every mentoring activity. 2) Low reading culture. Most participants did not have the habit of reading, especially the scientific literature to be relied on in the research. Generally, they cited or rewrote literature reviews or theoretical frameworks from theses or other studies considered similar or close to their manuscripts. 3) Difficulty in finding the appropriate time. Frequently, the compromised time was not appropriate for some participants, so they could not attend the activity due to other duties that could not be postponed. Some of them were absent due to family or community affairs. Nevertheless, it could be understood because most madrasa teachers were village community leaders. 4) Limited means. Most madrasahs did not have adequate learning facilities. For example, not all of them had LCD or internet hotspots to be accessed openly by all participants. 5) Writing/researching was not considered a necessity. Based on the observations of the accompanying team, teachers' interest in writing or conducting research was relatively low. It was reflected by the discipline and enthusiasm of the assisted participants of the mentoring program, which indicated that madrasa teachers lack interest in developing their professionalism.

### 4. Alternative Solution

The accompanying team identified problems of the lack of maximum expected targets. They were affected by external and internal factors related to the mentoring programs. Some of the solutions to alter the mindset of assisted participants, especially madrasah teachers, were as follows: 1) There must be a program for the mental transformation of madrasah teachers. In this regard, the awareness to learn and make innovations must be instilled. It is crucial because teachers are the main actors in educational success. 2) It is necessary to carry out a 'learning contract' by formulating various consequences in the form of rewards and punishments to maintain the consistency of the participants and the mentoring team. 3) Partnerships with various institutions in organizing the mentoring programs, such as the collaboration between UIN Walisongo and the Ministry of Religious Affairs, MGMP, KKG, etc. If each institution can jointly improve the quality of madrasa teachers, the process will become more effective and efficient. 4) There must be continuity in the program. Limited time was the reason why the results could not be maximized. Therefore, it requires sufficient time allocation to continue the mentoring program.

The solution is considered conditional, as it needs to be adjusted to the conditions of the assisted participants. Moreover, this program is supposed to be a community service, especially for madrasah teachers. Hence, the goal is to improve the quality of madrasah education and not interfere with teaching and learning activities.

#### Conclusion

Based on the above explanation and data analysis, researchers concluded that the research assistance program for Civil Servant

teachers at private madrasahs in Semarang City was accomplished by carrying out various activities such as workshops, action plans, proposal seminars, result presentations, and reviews. 20 participants from private madrasahs in Semarang City attended this research mentoring program. In addition, it resulted in some changes, such as growing the participants' competence in determining problems in the classroom, analyzing the problems, solving the problems, developing innovative learning, being aware of developing academic culture, having self-confidence as professional teachers, and growing awareness in conducting scientific research.

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