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Cluster-Mentoring for Sustainable Competency: A Case Study of PTK Training for Islamic Education Teachers in Junior High Schools

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ABSTRACT

Purpose – Given the various challenges faced by teachers in making PTK reports, this study aims to investigate the effectiveness of the Cluster-Mentoring-based mentor program in supporting the sustainability of competency programs for Islamic Education teachers at the Junior High School level in Sleman District.

Design/methods/approach – This case study evaluated the implementation of a Cluster-Mentoring-supported PTK training program among Islamic education teachers from 14 secondary schools participating in the PTK and Mendeley training using observations, online interviews, and documentation for data collection, by applying purposive sampling techniques.

Findings – This study aims to improve the understanding of Islamic Education teachers in Sleman District about PTK preparation for junior high school, using Zoom meeting-based online training and Cluster-Mentoring methods and practices. The training was practical, with 63% of teachers having no difficulty finding research problems, 57% having no difficulty creating background problems, and 70% finding Mendeley app training easy to understand. After Mendeley's training, 87.5% of trainees were able to use the app to create writing references. Cluster-Mentoring Grouping also helped participants understand the material better.

Research implications/limitations – This study only focuses on variables related to PTK training programs, specifically the Cluster-Mentoring model and training outcomes. The study did not analyze other variables, such as teacher obstacles and attitudes.

Originality/value – This study aims at providing an overview of competency development programs through PTK training assistance and delays using the Cluster-Mentoring method for Islamic Education teachers in Secondary Schools in Sleman.

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Introduction

Success in education is determined by the quality and hard work of educators who maximize creativity and competence through various activities, one of which is learning about sustainability and developing themselves with new and dynamic professions (Liljenberg, 2015). The teaching profession requires special skills. Therefore, teachers are expected to have academic qualifications, teaching certifications, competencies, physical and psychological health, and the capability to achieve national education goals. Teacher competence is a teacher's proficiency not only to be adequate but also to excel and valid (Cooc, 2019). According to Guza standards, teacher competence consists of four key competencies: pedagogical competence, personality competence, social competence, and professional competence (Guza, 2008). Teachers are inseparable from the efforts of learning academic frameworks for professional growth (Sulistyowati et al., 2012).

Additionally, teachers are also required to educate, teach, and train. Educating means transmitting and developing life values. Teaching means transmitting and developing knowledge and technology. Meanwhile, training means developing skills for students. Meanwhile, coaching means developing students skills. As stated in Law of the Republic of Indonesia Number 20 of 2003 on the National Education System, 2003 Article 39 paragraph 2, "competent teachers are responsible for planning and implementing the learning process, assessing learning outcomes, and providing guidance and training, as well as conducting research and community service, especially for educators at the university level." Accordingly, teachers must conduct classroom action research to solve students' problems and develop their abilities (Arsen Nahum Pasaribu et al., 2021).

The main issue discussed in this paper is the lack of understanding and implementation of Classroom Action Research (PTK) by teachers in Indonesia. Although PTK is essential for professional growth and promotion, many teachers find it difficult to prepare and conduct PTK due to a lack of information and understanding. In addition, teachers are not used to using citation applications such as Mendeley, which can assist them in citing references and preparing PTK reports. As a result, training and mentoring programs are needed for teachers to understand and be effective in implementing PTK, as well as to utilize citation applications such as Mendeley.

Classroom Action Research (PTK) is research closely related to activities and functions and has an impact on improving the quality of learning. The focus of study in a classroom-centered context, especially in a separate classroom, is usually called "classroom action research" or PTK (Haerullah & Hasan, 2021). This paper will emphasize the importance of PTK in improving the quality of education and the need for teachers to conduct this type of research to solve students' problems and develop their own abilities. Also, this paper will emphasize the four key competencies – pedagogical, personal, social, and professional – that teachers need to master to achieve national educational goals. The study here has shown that PTK reports are significant for teachers' professional development and promotion, where they must adhere to the standard citation practices of journal articles to ensure that PTK reports are accepted and recognized by the academic community (Tampubolon, 2014).

In addition to providing benefits to improve the quality of learning and education, PTK reports are essential for teachers in terms of promotion and credit for professional development. Teachers are required to develop themselves, conduct scientific research, and implement work innovations following the regulations of the Minister of National Education and Head of BAKN Number 03 / V / PB / 2010 and Number 14 of 2010 concerning guidelines for the implementation of teacher functional positions and available credits (Kememdikbud & Kepala Badan Kepegawaian Negara RI, 2010).

Since 2013, the requirement for teacher promotion or placement from III/b to higher ranks has included conducting and developing research activities and publications, including Classroom Action Research (PTK) results. According to the teacher certification policy, professional development in the form of PTK is also a crucial factor in evaluating the success of teachers in obtaining certification. Therefore, inevitably, teachers must do research tasks and write them (Kemendikbud, 2019). Professional teachers should conduct Classroom Action Research as the results will provide useful information for their performance as a teacher, which can be used to improve and refine their professional activities (Afandi, 2014). Classroom Action Research should start with identifying the problem, defining the problem to be solved, creating a research plan, executing it, and determining the necessary follow-up actions once the research is complete. (Fitria et al., 2019).

From the initial interview, the researchers concluded a few things: preparing for Classroom Action Research might be a difficult step for an educator, and only a few of them can do it well. However, if educators or teachers go through the research process, the researchers can state that they already know what to do, how to do it, and why research is needed. Many educators have difficulty collecting PTK and applying it in the classroom. Their inability to prepare PTK is caused by a lack of information or understanding about PTK in practice. Since most of them do not understand PTK, the difficulties they face in class cannot be conveyed to the research to find answers. So far, classroom action research training has only provided an understanding of the basic ideas of classroom action research. The problem faced by teachers today is that not all teachers are familiar with PTK. Moreover, citation or reference issues are a common challenge in preparing PTK reports under journal article citation standards.

Due to the advancement of information and technology in scientific writing, articles and journals must be prepared using automatic citation applications. Various citation applications, including Mendeley desktop, can be used online or offline. The program is helpful in several PTKa, including 1) allowing citations following the publisher's desired criteria; and 2) facilitating the update for data or reference sources, whether in books, journals, or other scientific works. Using the Mendeley desktop, which only requires 17 MB of hard disk space and simple laptop or computer-compatible criteria, its presence will help researchers or authors make citations very quickly (Arifin et al., 2020) However, teachers are still familiar with using the Mendeley app.

To overcome this problem, teachers must receive training and mentoring in using the Mendeley application. This training and mentoring can be carried out by schools or

other related institutions, such as training centers or universities (da Graça Nicoletti Mizukami et al., 2015). Moreover, it is important for teachers to improve their understanding of PTK and PTKa to apply them in practice. Teachers can do that by attending training or seminars on PTK or reading books or articles on the topic (Betlem et al., 2019).

Regarding the drafting of PTK reports, teachers need to follow the applicable journal article citation standards. They must correctly identify reference sources and accurately include citations and lists of references. It will ensure that the academic community accepts and acknowledges their PTK reports.

PTK is an important part of professional development for teachers in improving the quality of education in Indonesia. By conducting PTK, teachers can improve their teaching skills and competencies and enhance the learning quality in the classroom (Soenarto et al., 2020). In this case, the Mendeley app can be a very useful tool for teachers in preparing or drafting their PTK reports. Therefore, teachers need to receive training and assistance to use this application to optimize its benefits.

Based on the above description, it is obvious that educators need help in making PTK reports, especially in terms of proper automatic citation and standard writing of journal articles or scientific papers. Also, they need motivation for sustainable achievement through PTK-based article writing. Furthermore, assistance is needed in the form of relevant information and motivation related to the material to be published in scientific papers in the form of appropriate journal articles, and regulatory content that discusses PTK must be implemented and accepted.

Another study by Arifin et al. investigated community service activities through a Mendeley-based citation assistance program in writing proper articles in various leading journals and providing writing skills training for educators all over Bondowoso District. However, in this study, they were only trained to convert PTK reports into journal articles yet were not trained in preparing PTK from scratch (Arifin et al., 2020). Fitria et al. also presented their research on improving the competence of elementary and junior high school teachers in Ogan Ilir Regency, South Sumatra Province, through PTK training. Although PTK training started from scratch, there was no training on using Mendeley (Fitria et al., 2019). Still, based on the various studies above, there are numerous obstacles in training, such as only one-time meetings and a lack of practical assistance and mentoring per participant.

Based on preceding studies, it can be concluded that the researcher wants to be more in-depth to examine the effectiveness of Training in making Classroom Action Research and Mendeley Training improve the sustainable competency programs for junior high school teachers in Islamic education in Sleman through the use of the Cluster-Mentoring method. This study seeks to evaluate the impact of Cluster-Mentoring on teachers' ability to develop sustainable competency programs and identify factors that influence the success of Cluster-Mentoring in improving program sustainability. The research will use a case study approach and qualitative analysis methods to obtain a more in-depth understanding of teachers' experiences and perspectives using Cluster-

Mentoring. Hopefully, the study results can provide recommendations for developing a more effective and sustainable Cluster-Mentoring program to improve the competence of junior high school Islamic education teachers in Sleman.

Methods

1. Research design

This research used qualitative methods with case studies to obtain an in-depth and comprehensive understanding of the phenomena experienced by the research subjects, for example, behavior, perception, motivation, action, etc., holistically, through descriptions in the form of wording and language in a natural context (Creswell, 2014). The researcher wanted to conduct a more in-depth examination to investigate the effectiveness of Cluster-Mentoring in improving the sustainability of competency programs for secondary school Islamic education teachers in Sleman through the use of Mendeley's Classroom Action Research and Training methods. This case study examined PTK and Mendeley training for Islamic education teachers in Sleman District. The study was conducted for two months, with training sessions were held twice a week.

2. Research Informants

The participants were twenty teachers of Islamic religion and education, fourteen secondary schools, and regular teachers who registered and filled out questionnaires to participate in the training. The author acted as a mentor and speaker, assisted by several collaborators, including one lecturer from UIN Sunan Kalijaga, one supervisor for Islamic education teachers in Sleman Regency, and two master students from the Islamic education study program UIN Sunan Kalijaga. Also, there are other speakers presented to provide a more in-depth understanding to the participants. The study object was teachers' capability to conduct classroom action research, with the expected impact and objective that after PTK preparation training, there will be an improvement in the ability of Islamic teachers to prepare classroom action research, as well as the ability of teachers to operate the Mendeley desktop application.

3. Data Collection Techniques and Instruments

The data collection techniques used in this study were interactive, and the entire data collection process came from field studies, such as using an interview technique. Researchers used semi-structured interviews, observations, and documentation techniques derived from observations, as well as data obtained from documents related to training on the making of Classroom Action Research and Mendeley Training in improving sustainability competency programs for junior high school teachers in Islamic education in Sleman through the use of the Cluster-Mentoring method.

4. Data analysis technique

This study employed a qualitative approach with data analysis techniques using deductive methods. The deductive method involves a thinking process that starts by explaining a general problem and then narrowing it down to a specific problem. (1) data on participants' responses to the implementation of PTK preparation guidelines were used using questionnaires. The instrument was filled with questionnaire guidance on how many statements and written interviews (2) were conducted using observation techniques. (3) data on the ability of teachers to prepare assessment instruments for PTK products used to be produced as reports and works. (4) Discussion and data analysis techniques using qualitative description analysis techniques and discussed following the existing regulations and theories.

Result and Discussion

1. The Implementation of PTK Training and Mendeley Training in the Sustainable Competency Program (PKB)

Some Islamic education teachers attended PTK writing and Mendeley using training in PKK at the junior high school level throughout the Sleman district. The total number of teachers who participated in those training was 15 people. There were four members and presenters at the PTK training. The presenter training involved one lecturer from UIN Sunan Kalijaga, one district Islamic education teacher supervisor from Sleman, and two master students of Islamic education of UIN Sunan Kalijaga. The training on PTK and the use of Mendeley had the purpose of drilling Islamic education teachers in designing PTK, composing or compiling scientific work in the form of PTK, using Mendeley as a medium in referencing, quickly finding reference sources in writing PTK, and motivating teachers to conduct PTK.

The training was conducted online using the Zoom Meeting application. The training was held for six meetings, where each meeting had a four-hour duration. The training was divided into two sessions: PTK writing training and Mendeley usage training. In other words, in each meeting, the teachers carried out two types of training at once. After finishing PTK training in the first session, the teachers attended Mendeley usage training in the second session. The Head of the Madrasah Education Section of the Ministry of Religious Affairs of Sleman Regency officially opened the training.

The effectiveness of PTK writing and Mendeley training can be seen through several indicators, such as participants' understanding of PTK, the PTK products written by each trainee, participants' comprehension of the Mendeley application, participants' ability to use Mendeley, participants' enthusiasm and eagerness to participate in training, and participants' motivation to carry out PTK after attending the training. Those indicators were measured through pretest and posttest using design questions, interviews for training implementation in the form of essays, and Google form media.

The mentoring design used in training, namely Cluster or participant grouping, also helped participants follow or understand Mendeley's training. 100% of participants stated that the grouping model was easier to understand since it gave participants more focus,

saved time, and allowed mentors to monitor difficulties and quickly communicate with them.

The participants' enthusiasm and eagerness to participate in PTK and Mendeley Training can be measured through the presence of teachers in advanced training. Participants could attend and join the training at the right time despite their busy teaching schedules or other educational operational duties. The participants showed calm attitudes and followed the instructions or directions given by the mentor teacher. Another reason behind the participants' enthusiasm for advanced training was that all of them could figure out and recognize the competencies of the presenter, namely the presenter's ability in training methods or theories. Based on the above-presented training process and results, it can be summarized in the following figure:

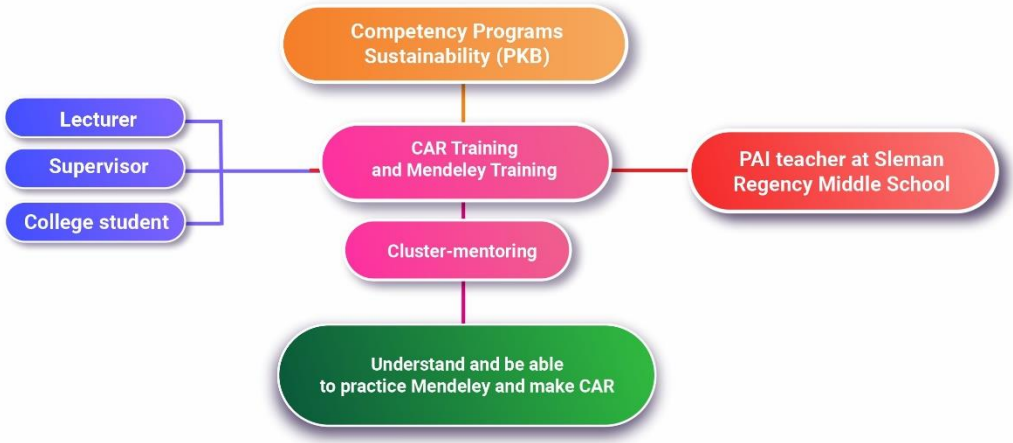

Figure 1. Implementation of PTK Training and Mendeley Training on Competency Programs Sustainability (CPS)

The aim of PTK writing and the use of Mendeley training for CPS held in the Sleman district was to improve the skills of Islamic education teachers in conducting scientific research and writing. This training taught teachers to design PTK, compile scientific papers in PTK, and use Mendeley to refer to sources. The expectation by mastering this skill is that the teachers can produce more qualified written works and improve the quality of Islamic education in their area.

Furthermore, PTK writing and the use of Mendeley training also helped Islamic education teachers to manage their reference sources more quickly and effectively when citing sources (Hudriati et al., 2018). By utilizing this technology and media, teachers could save time in finding references, allowing them to focus more on quality PTK writing (Sabarudin et al., 2022).

Overall, the PTK writing and the use of Mendeley training for CPS in the Sleman district was a positive initiative. The expectation is that by improving the skills and abilities of Islamic education teachers in conducting scientific research and writing, the quality of Islamic education in the area can improve (Salmia et al., 2022). Additionally, teachers can easily access the necessary references by utilizing reference management technologies and applications like Mendeley, allowing them to write PTK more quickly and effectively.

The role of speakers in the training involved UIN lecturer Sunan Kalijaga who provided an understanding of the importance of improving teacher competence, an explanation of writing scientific papers, the urgency of implementing PTK, the importance of following technological developments for education implementation, and motivation for the teachers to carry out PTK. Islamic education teacher supervisors provided training on PTK implementation, ranging from planning to implementing PTK in each school. The master students of Islamic education provided training in using Mendeley as a means or medium for reference making.

The PTK training process used practice and mentoring. Practice means "to do" or hands-on exercises. After studying the material and observing the work, trainees needed to demonstrate the materials that had been taught. (Sawyer et al., 2015). Mentoring is a relationship in which a person (mentor) – who is usually more experienced and often more senior – supports another person (learner or mentee) with guidance, regular feedback, and personal discussions, enabling the mentee to be more self-aware, gain knowledge and confidence, and develop his or her potential and abilities. (McKimm et al., 2007). It means that, in this training, the speaker did not provide too many theories about PTK. From the beginning of the training, the trainer directed participants to identify problems they should write in PTK. From various PTK cycles or flows, teachers were immediately given assignments related to the sub-chapters discussed. The speaker gave explanations and examples of the discussed PTK sub-chapters. The speaker allowed trainees to ask if there were concepts they had not yet understood. They used hands-on practice and direct assistance or hands-on assignments to ensure that teachers understand PTK from a theoretical aspect and that PTK participants have products or results in the form of PTK scientific work once the training is over

Mendeley's training process employed design-based mentoring and practical mentoring. Cluster in Indonesian means grouping, while mentoring is the intended help. Participants were divided into small groups, each had a mentor who guided participants in Mendeley's practice. The purpose of group division was to make the training in question run more conducive and effective. The first thing the presenter should do is explain Mendeley as a tool for creating reference writing. After the participants comprehended the Mendeley functions through hands-on practice, the author guided them in using Mendeley. The steps taken include: installing Mendeley, finding sources or references, inserting references to the Mendeley application, implementing Mendeley in writing, suitable for footnotes or bodynotes, and making bibliographies through Mendeley media.

This teacher training program was conducted during the transition period of the COVID-19 pandemic. As a result, training was delivered online, and school superintendents provided face-to-face assistance to teachers in their schools, respectively. Despite the challenges posed by the pandemic, this approach has been considered adequate and provided a viable solution for conducting training. This blended learning approach allowed flexibility while still providing personalized support to teachers. Through the guidance of school superintendents, teachers could apply the new skills they acquired in their classrooms, ultimately benefiting their students. Despite the pandemic, this training

program proved to be a successful and practical approach to support teacher development in the education sector.

2. The effectiveness of the Cluster-Mentoring approach in supporting the competency program sustainability for Islamic Education teachers in Sleman

The effectiveness of the Cluster-Mentoring approach in supporting the competency program sustainability for Islamic Education teachers in Sleman. All Participants said that the material delivered was not too fast or slow, the speaker gave guidance with complete patience, visible sunlight, and guidance was carried out gradually and continuously. According to the survey results, some teachers faced several difficulties while PTK training, including being busy participants in fulfilling their work as educators, dividing time for the following training sessions, or performing tasks assigned by speakers. Participants also faced other technical obstacles or difficulties, such as the lack of stable internet access to allow them to fully participate in the training.

Another indicator that showed participants grasped the theory well was no difficulty in finding and choosing phenomena or problems they should research. In particular, there was 63% of teachers who had difficulty finding research problems and the remaining 37% still found it difficult to find research problems in the field. Based on the above description, the percentage can be seen in the following figure:

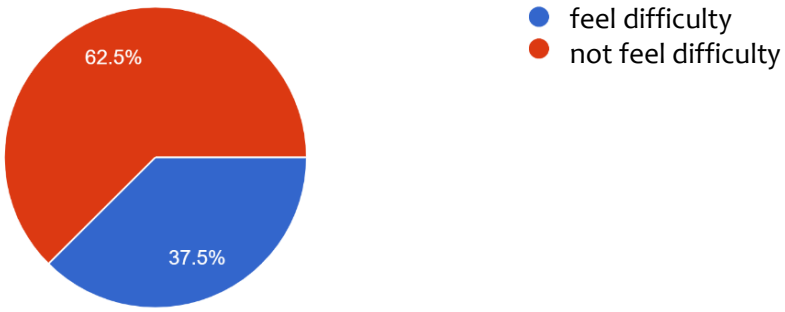

Figure 2. of teachers do not feel difficulty in finding problem research

One of the problems experienced by teachers in finding solutions was determining the students' needs. It was due to the teachers did not meet or had a face-to-face encounter with the students beforehand. The next was regarding making the background of the problems, 57% of teachers did not have any difficulty, while the remaining 43% still had difficulty in making them. Another obstacle faced by teachers in creating the background of the problem was finding a suitable strategy or method to work with students due to various teachers' conditions and limitations in interacting directly with participants.

Mendeley training attended by participants was easy to understand and follow; about 70% of teachers stated that their training in using the Mendeley application was easy

to understand as theory or guidance was delivered slowly and interactively. Then, during the training, participants practiced directly using Mendeley under the guidance and direction of the speaker. The obstacles experienced by participants when attending the training were technical, namely weak internet network connectivity and device specifications used by participants in attending the training. After attending the Mendeley training, about 87.5% of participants were able to apply or use the Mendeley application in reference writing.

Based on the above explanation, the percentages can be seen in the following figure:

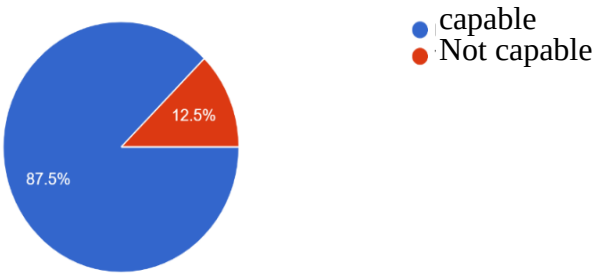

Figure 3. participants are capable of applying or using the Mendeley app in reference writing

This study evaluated the effectiveness of vocational teacher training programs while they were teaching using a blended learning approach, which combined face-to-face, online, and offline learning methods. The study found that participants were satisfied with the training and acquired work-related knowledge, skills, and attitudes. In addition, they could apply what they had learned to their workplace. Concerning the effectiveness of training teachers while they are teaching, the study recommends using IT resources in fields not related to computers. It can be achieved by providing basic IT skills training to instructors not from the IT field before participating in the ongoing training through blended learning. Additionally, the study suggests conducting research in technical streams, including teaching at the diploma level and comparative analysis of the effectiveness of blended learning for different fields of work (Asghar et al., 2022) (Wear, 2021).

Mendeley's training programs attended by participants are considered easy to understand and well-delivered. According to the survey, 70% of teachers found it easy to understand training on using the Mendeley app. It was related to the slow and interactive material delivery or guidance from the trainer. Participants were given hands-on experience using the Mendeley app during training, with guidance and direction from trainers.

Although the overall Mendeley training program was successful, participants experienced some technical difficulties. Notably, there was a report of problems regarding weak internet connections and device specifications used to attend training. However, 87.5% of participants could apply or use the Mendeley app to create writing references after completing the training.

One of the factors that facilitated participants to participate in the Mendeley training program was the mentoring design used. In particular, the use of small mentoring groups or clusters of participants was very effective. According to the survey, 100% of participants found this mentoring approach more helpful because it allowed for a more focused approach by the mentor, saved time, and enabled the mentor to monitor difficulties quickly. Moreover, communication between participants and mentors was more conducive in this small group setting.

Mentoring plays an important role in shaping students' learning experiences. The mentorship quality has a significant impact on students' ability to produce quality work and achieve their goals (Manderstedt et al., 2022). Based on the interview results with trainees, it was obvious that mentorship and support were critical to their success. Students reported feelings of being understood and supported throughout the process of making their classroom action research, from start to finish. The mentor's guidance and expertise enabled students to produce high-quality work and achieve desired results. As a result, students could develop their research skills and confidence, preparing them to pursue future academic studies.

Students' positive experiences with mentoring have led to the successful completion of their classroom action research and the submission of their research articles to academic journals. The mentors' support and guidance have enabled students to navigate the challenges they encountered during the research process and ensure they have achieved their goals. A student's ability to produce quality work is proof to a mentor's commitment to their success. Effective mentoring requires expertise, patience, and empathy, as it helps students develop important skills and self-confidence. Therefore, mentors are essential in ensuring that students have the support to succeed academically (Cardinot & Flynn, 2022) (Smith, 2022).

Those training participants have motivated the authors to write scientific papers on PTK after training. One of the motivational reasons or causes given by the speaker is the importance for teachers to continuously develop competence as teachers, where one of the PTKas was through PTK. The participants then must understand the method of implementing PTK, which motivates them to continue honing their skills. Based on the results of the survey interview, it was obvious that 100% of teachers or participants were motivated to implement PTK. Several reasons why teachers were motivated to conduct PTK, among others, are feeling capable, increasing competence, improving quality learning, and being motivated for their work and writing scientific papers.

The mentoring approach used in training, which involved grouping participants into mentoring clusters, was effective in helping them understand Mendeley's training. All participants reported that this approach made them easier to focus, saved time, and allowed mentors to monitor their progress and communicate with them quickly (Latif et al., 2017). The participants' level of enthusiasm and commitment can be seen from their attendance at follow-up training sessions, which they managed to attend despite being busy with teaching or educational tasks. They showed calm attitudes and attention to the

instructions and guidance given by the coaches. A high level of participant motivation and involvement in training was also related to trainer competence and practical teaching skills.

Indeed, the quality of teaching is closely related to professional development and teacher training. Each program, to develop the teachers, must consider processes, insights, structures, and ideas that allow teachers to reflect on and improve their practice throughout their careers (Rizvi & Nagy, 2016).

Using a mentoring cluster approach in PTK and Mendeley training also reflects the importance of using effective learning strategies. Mphahlele and Rampa argued that cluster systems can be innovative networks for teachers (Mphahlele & Rampa, 2014). In this approach, teachers are divided into small groups and given mentors who act as facilitators, guides, and evaluators in the training process. With this PTKa, teachers can focus on understanding the training material and receive direct guidance from their mentors.

Teachers' participation and attendance in PTK and Mendeley training show a high level of motivation and commitment to improve their professionalism. This can be explained by using motivational theories, such as expectation and reward theories. According to expectancy theory, individuals choose actions that are expected to produce positive results. Meanwhile, according to reward theory, individuals tend to perform actions that are rewarding or provide benefits (Sharot & Sunstein, 2020). In this case, PTK and Mendeley training have provided benefits for teachers in terms of professional development, allowing them to feel motivated to attend the training.

Using PTK and the Mendeley application can help teachers improve the quality of learning in the classroom. By conducting PTK, teachers can identify problems that occur in learning and find appropriate solutions. Meanwhile, using the Mendeley app can help teachers effectively manage citations and references in their PTK reports. Thus, PTK and Mendeley training is very important in developing teacher professionalism and improving the quality of education in Indonesia.

Conclusion

The findings of this study generally indicate that PTK and Mendeley training for Islamic education teachers in the Sleman District through the Competency Program Sustainability has successfully improved their ability to identify research problems and write background problems. This training also successfully helped most participants in using Mendeley to write references. Moreover, the cluster model used in training has proven effective in improving participants' understanding and focus. The benefit of this research finding has lied in providing information on effective and efficient training methods to improve the competence of Islamic education teachers. However, the limitation of this study is that it only has focused on variables related to PTK training programs, specifically the Cluster-Mentoring model and training outcomes. Other variables that might influence the program's success, such as teacher obstacles and attitudes, were not analyzed. Therefore, future research should include evaluating the impact of

competency improvement on the quality of classroom teaching and exploring alternative training methods that may be more effective in achieving desired outcomes.

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