Enhancing Research Competence of Islamic Religious Education Teachers through the Mentoring Model in the Era of Digital Technology

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Abstract:

This research aims to investigate the effectiveness of implementing the mentoring model in improving the research competence of Islamic Religious Education (PAI) teachers in the era of digital technology. This qualitative research uses a phenomenological approach to dissect the reality of PAI teachers' awareness and experience in conducting research, explore the impact of mentoring activities in improving PAI teachers' research competence and explore the role of digital technology in supporting the improvement of their research competence. Authentic and valid data collection was obtained through interviews, observation and documentation. Informants were selected using a purposive sampling technique, taking into account their motivation and interest in conducting research, employment status (ASN), which requires self-development in conducting research, and skills in using IT technology sophistication. Data analysis techniques are carried out through data analysis and field interpretation, analysis and interpretation after data collection, and the development of coding categories. The research results show that (1) the mentoring model effectively increases understanding and (2) PAI teachers' skills in conducting research. Apart from that, (3) research subjects' motivation, cognition and conation (willingness) are the sine qua non in carrying out mentoring. Also, digital technology is crucial in facilitating interactive relationships between mentor-mentees. The implication of this research is a deeper understanding of the motivations, perceptions, and experiences of PAI teachers in following the mentoring model.

Key Words: *Research Competencies, Islamic Education Teachers, Mentoring Models, Digital Technology*

INTRODUCTION

Islamic Religious Education (PAI), an integral component of the national education system, plays a pivotal role in moulding students' characters, ethics, and religious consciousness religiosity (Muthrofin et al., 2023). In pursuit of this objective, PAI teachers, as primary facilitators in the educational process, bear significant responsibility for fostering high-quality and purposeful learning experiences (Widdah, 2022).

The professionalism of PAI teachers as learning agents must continue to be improved in order to provide optimal learning services to students by

continually improving their competence (Van Nuland et al., 2020). The competency in question is a set of knowledge, skills and behaviours teachers must possess, master, and actualize in carrying out their professional duties.

Therefore, teacher professionalism must continue to develop steadily and continuously in line with developments in science, technology and community needs, including quality and capable human resources. Compete in national and international forums. The government has provided facilities and access to teachers through the Continuous Professional Development (PKB) program to increase their competency above the professional competency standards for teachers. This will also impact obtaining credit points for promotion to teacher rank/functional positions (Nurillayevna et al., 2022).

There are three fundamental reasons teachers must be able to write scientific papers. First, the world of teachers is the world of literacy: reading, writing and teaching. A teacher who can write scientific papers well is a good reader listener and has the potential to become a professional teacher. Second, by writing scientific papers, the status and role of teachers as educators is aimed at students at school and can be shown to society. Third, writing scientific papers is a place or medium for exchanging ideas and sharing ideas, which is very important for developing science and culture. Therefore, teachers who write scientific papers can develop their thoughts more broadly (Handayani & Aminatun, 2020).

In the era of digital technology that continues to develop, PAI teachers face the dynamics of changes that occur very quickly and the escalation of new life challenges (Stoeger et al., 2021). Increasing the research competence of PAI teachers becomes very relevant in facing changes and dynamics in the era of digital technology. PAI teachers with good research skills can face the challenges of the digital era by being better prepared and able to utilize digital technology optimally in their research process (Kosasih et al., 2022).

This is where increasing PAI teachers' research competence through a mentoring model plays an essential role in presenting effective solutions (Muis et al., 2022). Utilization of digital technology in mentoring models. It is a crucial aspect in increasing the research competence of PAI teachers. With digital technology, PAI teachers can access the latest information, utilize sophisticated data analysis, and collaborate with researchers and academics worldwide. This opens up opportunities for PAI teachers to develop relevant and innovative research and present an understanding of the Islamic religion that is in line with current developments (Alfiah, 2020).

Implementing this concept benefits PAI teachers in improving research competence and positively impacts the overall quality of Islamic religious education (Strumińska-Kutra & Scholl, 2022). PAI teachers with good research competencies can present teaching material more in-depth and accurately, making Islamic teachings more meaningful and impactful on students (Al-Hakim et al., 2022).

In general, increasing the research competence of PAI teachers in the era of digital technology opens up great opportunities for developing the quality of Islamic religious education. For more vital research, PAI teachers can be agents of change who contribute to the development of PAI science, prepare students to face the challenges of the times and respond to the changing dynamics of modern society (Kumari et al., 2020).

Research competency is an inseparable part of teacher professional competency, which includes field competencies, research competencies, Curriculum Competencies, Lifelong Learning Competencies, Social-Cultural Competencies, Emotional Competencies and Communication Competencies. Teachers' skills in conducting research still need to improve, so they need training and guidance to improve these competencies. Through mentoring efforts through mentoring and coaching, teachers will be able to improve their research abilities. The research results were that MAN 2 Surakarta teachers, after mentoring, could write scientific papers and publish them (Aris et al., 2022).

Many other researchers have also highlighted the vital role of digital technology that PAI teachers must master (Stoeger et al., 2021). From the results of multiple regression analysis, it can be concluded that the variables of training and pedagogical competence simultaneously and significantly influence the professionalism of teachers (Winarto et al., 2020). The teacher was quite satisfied with this training activity for Scientific Writing Training. The digital literacy competency level of State High School teachers is at an intermediate level Medium (Orland-Barak & Wang, 2021).

Based on several studies above, research competencies for PAI teachers will help increase professionalism in today's digital era. Mentoring and training by credible and competent people greatly influence the process and results of these activities. Proposes an integrated approach to teacher assistance beyond the four existing approaches: diagnostic, deliberative, inquiry, and practice (Murkatik et al., 2020). Through this integrated approach, mentors are expected to understand how mentees map their strengths and weaknesses, implement mentoring plans, develop appropriate strategies, and identify ineffective ones (Aris et al., 2022).

The novelty of this research is presented as an inseparable part of previous research, where the researcher attempted to investigate the effectiveness of implementing the mentoring model in improving the research competence of Islamic Religious Education (PAI) teachers in the era of digital technology (Sulaiman et al., 2020). Using a phenomenological analysis knife, the researcher tried to dissect the reality of PAI teachers' awareness and experience in conducting research, explore the impact of mentoring activities in increasing PAI teachers' research competence and explore the role of digital technology in supporting the improvement of their research competence. This research aims to analyze and understand the impact of mentoring activities on improving PAI

(PNS/P3K) teachers at the junior high school level in Probolinggo Regency in today's digital era.

The purpose of this study is to support the professional growth of PAI educators through the development of their research capabilities. Thus, the results of this research can significantly improve teaching quality, enrich the educational environment with a strong research culture, and stimulate interest and involvement in research activities among PAI teachers.

RESEARCH METHODS

This research uses a qualitative approach. A qualitative approach is a research method that aims to understand phenomena in a natural social context. This method uses descriptive data in words and language by utilizing various scientific techniques to deeply understand a phenomenon, especially in a natural social context. This study focuses on the communication interaction process between researchers and the phenomenon under study, for example, behaviour, perception, motivation, and action holistically. The qualitative approach allows the researcher to explore the meaning of the observed phenomena and encourages a deeper understanding of the subjective experience experienced by the research subject (Sun et al., 2020).

The study used several data collection techniques, including interviews, observation, and documentation. In-depth interviews were conducted to understand the motivations, perceptions, and experiences of PAI teachers in following the mentoring model. Participatory observation provides a direct picture of the application of the mentoring model in real situations. While documentation is used to collect data relevant to the research (Jain, 2021).

This study used data analysis techniques that refer to the data analysis model proposed by Bogdan and Biklen (2007). This analysis is a process of systematically searching and organizing the results of interviews, notes, and materials collected to increase understanding of all things collected and allow the presentation of what is found. The analysis steps include data processing and field interpretation, analysis and interpretation after data collection, and development of coding categories. Data analysis is descriptive by emphasizing the meaning of the collected data (Stough & Lee, 2021).

RESULTS AND DISCUSSION

Character Education Planning in Maintaining the Brand Identity Many strategies can be used to improve a person's or professional group's performance and professionalism, including mentoring. Mentoring comes from the word "mentor", a name in Greek mythology. At that time, King Odysseus asked mentor to educate his son, Telemachus, so that he would become more mature and be prepared as a successor to the king (Irby et al., 2020).

Many experts have put forward definitions regarding mentoring; however, in summary, mentoring can be interpreted as a mutually supportive

relationship in various dimensions (multidimensional) based on a sense of trust and mutual respect to help face challenges and problems in everyday Life.

Therefore, several aspects influence the effectiveness of mentoring activities: mentor-mentee personal and professional quality relationships; mentor practices and attributes; the environment or context in which mentoring activities are carried out; and the selection and determination of personal partners involved in it. In mentoring, there are two terms, namely mentor and mentee. A mentor is a person who guides, while a mentee is a person who is guided.

Mentoring is providing advice, information or guidance by someone with helpful experience, ability or specialism for another individual's professional and personal development. Mentors are analogous to wise and trusted advisors. A mentor is defined as someone who can help other people learn something they cannot learn themselves. The mentoring process can be used to instruct organizational culture, impart technical specialism, develop creative problem-solving, help develop critical thinking and build the interpersonal skills required to achieve successful organizational performance.

Pre-Mentoring Scenario

The researcher's initial step was to highlight the activity scenario before mentoring, including Mentor selection, schedule determination, material mapping, method selection and instruments to be applied. The mentoring was carried out for one month (4 x meetings), from mid-August to mid-September. The first meeting was held face-to-face because it was related to presenting fundamental research material, and the next meeting was held virtually via Zoom and Google Meet and related to conducting research and writing reports (Classroom Action Research). The final meeting was held face-to-face again regarding the presentation of research results and the selection of manuscripts for publication (Zaini et al., 2022).

Secondary PAI supervisors are selected as mentors who will accompany the training participants because they have been trained to write KTI, in addition to the supervisors' primary duties as quality assurance and quality control of PAI learning in schools., assisted by two PAI teachers who have experience conducting research and whose work has been published in print media (journals/books).

Implementation of Mentoring

There are four stages of implementation or meetings in mentoring activities. At the first meeting, the mentor presents material about research theory, which includes ten research competencies, namely: acquiring disciplinary knowledge in a multi-, inter-, and transdisciplinary framework, formulating research questions, defining a research plan, collecting, selecting, and organizing information, appropriate subject matter data, Determine the

relevance, value, usefulness and representativeness of the information, data and data sources obtained, and use them correctly, process data, make conclusions argumentatively and rationally, evaluate and assess research results, determine and build arguments for positions or opinions, prepare reports systematically.

The second meeting was held online (on the network) with a Zoom meeting, a platform commonly used by participants and mentors when the Covid-19 pandemic hit. At this meeting, the mentor gave the participant the task of uploading their completed writing to the Google form the mentor had sent. The mentor then checks the results of each participant's work. If the work results are appropriate, the mentor immediately validates them. However, if there are still things that need to be corrected by the participant, the mentor provides input and communicates it back to the participant so that it can be corrected. Participants then repeat the stages of work/repair, confirmation, and consultation with the mentor until the mentor declares the manuscript appropriate.

The third meeting was still held online, with guided discussions. In the guided discussion session, every 10 participants were guided by one mentor using Google Meet. In this guided discussion session, the mentor carries out an initial inspection of the completed work. The result of this session is the finalization of writing according to the existing template, as well as corrections and improvements to writing that do not meet standards. Mentors also, in this session, train participants in searching for Sinta and Scopus-indexed journals via Google Scholar and Open Knowledge Maps; educate participants in citation and editing bibliographies via the Zotero and Mendeley platforms; How to check plagiarism with Turnitin.

The final meeting was held offline (face to face), namely a presentation session and a selection of manuscripts for publication. In this session, participants whose manuscripts are suitable for publication can make presentations. Other participants were given the opportunity to respond, ask questions, and comment on participants who had presented to get feedback from other participants. The session closed with reflections on improvements by the mentor.

Qualitative Findings

The results of the interviews indicate that the implementation of mentoring activities significantly increases the research competence of PAI teachers. These findings align with the observed enhancements in their understanding of research methodology, data analysis skills, ability to formulate research questions, and preparation of research result reports. More than 85% of participants reported notable improvements in designing robust research frameworks and employing suitable research methods. Consequently, the benefits derived from such mentoring activities can elevate the capacity and capability of PAI teachers in conducting research, as emphasized by a PAI teacher who stated, "The urgency and benefits of this mentoring activity in enhancing the research competence of PAI teachers are strongly felt. This activity

continuously motivates and enhances competence to meet professional teaching standards" (W-pk2).

According to the provided information, motivation is considered a crucial aspect because a motivated teacher will exhibit a positive attitude and remain receptive to new experiences, positively impacting them. In this context, motivation is influenced by the people and the surrounding environment. Engaging in mentoring activities should be designed to attract participant engagement.

Similarly, a civil servant teacher noted experiencing changes after engaging in research mentoring, both at the cognitive and psychological levels, fostering a more profound affection for the PAI teacher profession (W_pn1). Furthermore, a PAI teacher who assumed additional responsibilities as a school principal emphasized that enhancing the research competence of PAI teachers would contribute to improving the overall quality of education in schools. Consequently, the continuous improvement of research competency is essential for all teachers, not solely PAI teachers, to integrate a research culture within the educational ecosystem of schools (W_ks1).

One of the MGMP SMP administrators found the experience of participating in this activity enjoyable, particularly in learning to address challenges collectively. He mentioned, "Life is a problem that must be carefully faced together, as we are social creatures. Moreover, the intricate problems within our educational realm can find appropriate solutions through collective efforts, lightening the complexity when tackled together" (W_p2).

These aspects align with Unesco's four pillars of educational goals, especially the pillar concerning learning to live together. Practical mentoring activities are, therefore, facilitated by peers. Consequently, aiding in enhancing the competency of PAI teachers involves mentors from within the PAI teacher community.

Participants' commitment to mentoring activities is a fundamental factor influencing the success or failure of such endeavours, as highlighted by representatives of PNS teachers. According to one representative, "Without similar commitment and motivation among us, the mentoring activity would not succeed and would be futile. Often, have participated in activities like this, but the outcomes were lacking due to pragmatic orientation and seeming spontaneity" (W_pn2).

In the rapidly evolving landscape of information and communication technology, PAI teachers must adapt to these advancements. A representative from MGMP management stated that this mentoring activity was effective and efficient as it adapted to the utilized IT facilities, such as Zoom meetings, Google Meet, WhatsApp, Google Scholar, Open Knowledge Maps, Zotero, and Turnitin. (W_p1).

The representative from the P3K teacher reflected that this mentoring activity was a process of self-efficacy. This activity enables the measurement of

individual capacity and capability, encompassing cognitive understanding of research and mastery of available information and communication technology (W_pk1).

Moreover, mastery and continuous updating of existing technological developments are imperative for teachers in the digital era. The rapid growth of digital technology significantly influences education, urging teachers to be "digitally literate" and proficiently utilize digital technology in their teaching practices.

Arif (2021), as quoted by Unik Hanifah Salsabila et al. (2021), highlighted various technologies utilized in PAI subjects, including the use of a compass to determine the Qibla's direction, videos/photos demonstrating prayer procedures, digital Qurans for quick verse/surah searches, and the utilization of internet features such as e-mail, blogs, and e-learning.

Lastly, as the principal (GPAI) expressed, the lesson learned from mentoring activities is lifelong learning. For him, "It is never too late to learn; as long as life resides in our bodies, learning remains our obligation. Learning is especially obligatory for us, being teachers of Islam" (W_ks1). While digital technology enhances access to information and collaboration, it is crucial to acknowledge that emotional support and character development contribute significantly to nurturing holistic competencies.

This research has an essential impact on the world of education. Through a focus on improving the research competence of Islamic Religious Education (PAI) teachers, this research plays a crucial role in advancing the professionalism of educators. Teachers capable of research can design better teaching strategies, provide innovation in learning methods, and enrich the educational environment with a strong research culture.

In addition, this research plays a role in building research awareness among students. By demonstrating a research-based teaching approach, teachers provide opportunities for students to discover knowledge, hone analytical skills, and improve critical thinking skills.

Overall, this research not only improves the quality of teaching but also forms the foundation for an inclusive research culture in the educational environment. It will encourage innovation, prepare students for future challenges, and create a more dynamic and knowledge-development-oriented learning atmosphere.

CONCLUSION

This research shows that intervention through mentoring activities significantly improves the research competence of Islamic Religious Education (PAI) teachers. The results highlight their increased understanding of research methodology, data analysis skills, the ability to design relevant research questions, and the preparation of more comprehensive research reports. More

than 85% of participants reported significant improvements in their ability to design robust research frameworks and adopt appropriate research methods.

It increases individual capacity, and this study underscores the importance of integrating research competencies in the educational environment. Teachers skilled in research have the potential to make a significant contribution to improving the quality of education in their schools. In addition, increasing research competence can also build a more robust and progressive research culture in educational institutions, motivating other teachers to participate in more structured and targeted research activities. Thus, this study confirms that intervention through mentoring activities improves the quality of teaching and plays an essential role in forming the foundation of an inclusive research culture in the educational environment. This provides a foundation for innovation, more effective learning, and better development of students' skills in line with the demands of the ever-evolving world of education.

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