

ENHANCING LECTURER QUALITY IN THE DIGITAL ERA: A CASE STUDY OF ISLAMIC HIGHER EDUCATION IN EAST JAVA

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ABSTRACT

This study aims to explore strategies for accelerating the improvement of lecturer quality in the digital era at LPTNU Bondowoso, focusing on the role of digital competency training, continuous professional development, and institutional support in enhancing teaching effectiveness and research productivity in Islamic higher education. A qualitative research approach was employed, involving interviews, observations, and document analysis. Data were collected from lecturers at six institutions under LPTNU Bondowoso, including STAI At-Taqwa, STIS Abu Zairi, STAI Al Maliki, STIS Darul Falah, STAI Al Utsmani, and STIT Togo Ambarsari. The data were analyzed using thematic analysis, a systematic method for identifying and interpreting patterns within qualitative data. The process involved familiarizing with the data, generating initial codes, organizing them into themes, refining and defining those themes, and finally producing a coherent report. This approach allowed the researcher to explore key themes related to the use of digital technology in teaching and research, while capturing the diverse experiences of the lecturers. The study found that effective digital competency training, combined with ongoing professional development and strong institutional support, significantly enhances lecturers' teaching effectiveness and research productivity. Key strategies identified include the use of digital tools for research, innovative teaching methods, and the ethical integration of technology in line with Islamic values. Additionally, structured workshops and mentorship programs were highlighted as essential for building digital literacy and academic writing skills. These findings provide valuable insights for educational leaders and policymakers in Islamic higher education institutions, emphasizing the need for a holistic approach that integrates technical training, ethical guidance, and administrative support to strengthen the digital competence of lecturers. Supporting materials include interview transcripts, observation notes, and institutional documents, providing comprehensive insights into the strategies for digital capacity building among lecturers at LPTNU Bondowoso.

INTRODUCTION

Islamic higher education plays a highly strategic role in shaping intellectual generations who not only master modern scientific knowledge but also possess a deep understanding of Islamic values(Sahin, 2018). This role has become even more critical in the current digital era, where rapid advancements in information and communication technology have significantly impacted various aspects of life, including education(Ouyang & Stanley, 2014). Islamic higher education institutions, which are responsible for producing graduates with both academic excellence and strong moral character, face substantial challenges in preparing their students to compete in an increasingly complex and digitalized job market. In this context, lecturers play a central role as educators, researchers, and agents of social change(Taylor & Fransman, 2004). They are tasked not only with transferring knowledge but also with shaping the Islamic character of their students.

In East Java recognized as one of the largest centers of Islamic education in Indonesia, the role of lecturers is particularly crucial. This region has a long-standing tradition in the development of Islamic scholarship, supported by numerous pesantren (Islamic boarding schools), Islamic universities, and Islamic higher education institutions (Sekolah Tinggi Agama Islam, STAI) spread across various cities. These institutions have made significant contributions to preserving and advancing the intellectual heritage of Islam, while also serving as centers of Islamic thought renewal in Indonesia(Jati et al., 2022). Amid the rapid growth of digital technology, lecturers in Islamic higher education institutions in East Java face a range of challenges in fulfilling their roles. In addition to mastering diverse academic content, they are also required to effectively utilize digital technology in their teaching and research.

One of the primary challenges faced by lecturers in Islamic higher education is adapting to digital technology(Dimitriadou & Lanitis, 2023). This technology encompasses various tools and platforms, including Learning Management Systems (LMS), video conferencing applications, and a wide range of digital communication tools that facilitate distance learning and online collaboration. According to a study by Serrano (2019), the integration of digital technology in teaching can significantly enhance student engagement and learning outcomes(Serrano et al., 2019). Many lecturers in Islamic higher education institutions still struggle to fully utilize these technologies. Factors such as limited infrastructure, lack of technical training, and resistance to changing from traditional teaching methods to more technology-based approaches are often major barriers.

Research by Kivunj (2013) emphasizes the importance of digital literacy for lecturers, highlighting that institutions with digitally skilled lecturers tend to produce graduates who are more competitive in the job market(Kivunja, 2013). The reality is that many lecturers in Islamic higher education institutions still lack the necessary skills to effectively use technology in supporting the learning process(Marjuni, 2022). They often feel overwhelmed by the demands to master new technologies while simultaneously focusing on Islamic scholarly development and student character building. In this context, a holistic approach to improving digital literacy is essential, including ongoing training, technical support, and improvements in digital infrastructure.

Beyond technical challenges the lecturers in Islamic higher education also need to enhance their pedagogical competencies in designing innovative and technology-based teaching methods(Gao et al., 2009). Traditional lecturer-centered teaching approaches must be transformed into more interactive, collaborative, and technology-enhanced learning models(Perera et al., 2020). In the context of Islamic education, this means that lecturers must be able to integrate technology with Islamic values, ensuring that teaching not only transfers knowledge but also builds the Islamic character of students. For example, using Quran-based learning applications, online discussion platforms that promote Islamic ethics, and technology that supports project-based learning can be effective solutions.

The challenges do not end with technology and pedagogy, research and publication competencies also remain critical issues(Uerz et al., 2018). As part of the "Tri Dharma" of higher education, lecturers are not only required to teach but also to produce high-quality research(Putri & Syarifuddin, 2020). Many lecturers continue to face obstacles in producing research that is relevant to the evolving field of Islamic scholarship and the challenges of modern society. Low research productivity is often caused by limited access to research resources, time constraints, and a lack of institutional support for publishing in international journals(Kadikilo et al., 2024). This underscores the importance of strengthening the research culture among lecturers to improve the overall quality of Islamic higher education in East Java.

What distinguishes this study from previous research is its focused exploration of how digital capacity building is being implemented specifically in Islamic higher education institutions under LPTNU in Bondowoso a context that has received limited academic attention. While many studies have discussed the general benefits and challenges of digital technology in education, few have examined the localized strategies, institutional dynamics, and real-world implementation practices within smaller religious-based institutions in rural Indonesia.

This study offers a novel perspective by highlighting the intersection of digital transformation with Islamic educational values, and by documenting lecturers' actual practices in utilizing digital tools for teaching and scientific publication. Moreover, it provides practical insights into how lecturers at grassroots-level institutions creatively adapt to technological advances despite infrastructural and resource limitations. The findings contribute new knowledge on how underrepresented institutions engage in digital innovation, offering models that can be replicated or adapted by similar educational settings in other regions.

Based on the above background, this study aims to formulate and identify effective strategies for accelerating the improvement of lecturer quality in Islamic higher education institutions in East Java. The primary objective is to gain a comprehensive understanding of the skills and competencies that need to be strengthened to meet the demands of education in the digital era. In addition, the study seeks to analyse both the challenges and opportunities faced by lecturers in adopting and integrating digital technologies into teaching and research practices. It further aims to evaluate institutional policies and development programmes that support lecturer capacity building, particularly in the context of Islamic higher education. Ultimately, the study intends to provide strategic recommendations for accelerating the digital transformation of lecturer quality, thereby contributing to the advancement of Islamic higher education in Indonesia. The goal is to help produce graduates who are not only academically proficient but also possess strong Islamic values and character.

METHODS

This study adopts a qualitative approach to explore the strategies that lecturers can implement in utilizing digital technology to improve the quality of teaching and scientific publications (Creswell, 2009). A qualitative approach is considered appropriate because it allows researchers to gain a deep understanding of the experiences, perceptions, and motivations of lecturers within a real-life context. It emphasizes the complexity of social phenomena and the meanings individuals assign to their actions, making it well-suited to investigate the integration of digital technology in higher education. Additionally, this research employs a case study design to provide an in-depth examination of digital capacity building among lecturers in Islamic higher education institutions in Bondowoso Regency.

The research was conducted at six higher education institutions under the Nahdlatul Ulama Higher Education Institute (LPTNU) in Bondowoso Regency. These include STAI At-Taqwa, STIS Abu Zairi, STAI Al Maliki, STIS Darul Falah, STAI Al Utsmani, and STIT Togo Ambarsari. These

institutions offer various programs in Islamic studies, social sciences, and teacher education, representing a diverse educational environment. This diversity provides a valuable opportunity to examine how digital transformation is occurring across different academic contexts. The selected institutions reflect the broader landscape of Islamic higher education in the region, allowing the study to explore both the challenges and the opportunities of digital capacity building.

Data were collected through a combination of semi-structured interviews, direct observations, and document analysis (Seidman, 2006). This triangulated method strengthens the validity and reliability of the findings by cross-verifying data from multiple sources. Semi-structured interviews were used to gather in-depth insights from lecturers regarding their experiences with digital technology in teaching and research. The interviews covered topics such as the challenges of adopting technology, the benefits of digital tools, and strategies for overcoming barriers. These interviews provided rich, narrative data that reflect lecturers' personal and professional experiences. Direct observations were conducted during scientific writing workshops and training sessions. These sessions offered insights into the practical difficulties lecturers face in using digital tools for academic purposes and revealed effective instructional methods through the interaction between trainers and participants. In addition, document analysis was performed on institutional records, such as training materials, academic publications, and workshop reports. This analysis helped contextualize the data by revealing the institutional support structures, resources, and policies related to digital learning and research activities.

The data collected through interviews, observations, and document reviews were analyzed using thematic analysis. This method is flexible and systematic, aimed at identifying, analyzing, and reporting patterns within qualitative data (Shull et al., 2008). Thematic analysis followed six key steps: (1) familiarization with the data by reviewing transcripts, notes, and documents; (2) generating initial codes from significant data segments; (3) searching for themes by grouping related codes; (4) reviewing and refining the themes for accuracy and coherence; (5) defining and naming themes to ensure clarity and focus; and (6) producing a final narrative report that addresses the research objectives. This approach enabled the researcher to identify key themes related to digital technology use in teaching and research, while capturing the varied experiences of lecturers across the institutions.

To evaluate the effectiveness of the scientific writing workshops included in the study, both qualitative and quantitative methods were employed. Qualitative evaluation was conducted by gathering feedback and reflections from participants regarding their satisfaction with the workshops. This helped to assess the perceived benefits, challenges, and the impact of the training on lecturers' confidence and academic writing skills. Quantitative evaluation measured outcomes by tracking the number or percentage of scientific articles produced by lecturers following the workshops. This offered concrete evidence of the workshops' success in enhancing lecturers' academic productivity and the practical application of digital tools in scientific writing.

RESULTS AND DISCUSSION

The findings of this study are based on data collected through interviews, observations, and document analysis conducted with lecturers from LPTNU Bondowoso. The data reveal several key themes related to the challenges and strategies of improving lecturer quality in Islamic higher education through digital technology. These themes include technological adaptation, professional development, institutional support, and the impact of digital tools on academic productivity.

Technological Adaptation

The integration of digital technology into the teaching and research practices of lecturers in Islamic higher education presents significant challenges, particularly in terms of technological adaptation. This issue emerged as one of the key themes during the interviews conducted with lecturers from six institutions under LPTNU Bondowoso, including STAI At-Taqwa, STIS Abu Zairi,

STAI Al Maliki, STIS Darul Falah, STAI Al Utsmani, and STIT Togo Ambarsari. A common sentiment shared by many lecturers was the difficulty in mastering new digital tools and platforms for both teaching and research purposes.

One lecturer from STAI At-Taqwa encapsulated this struggle, stating: *"The rapid development of digital technology is both an opportunity and a challenge. Many of us are not used to using digital platforms, and this becomes a barrier when we try to publish our research or teach online."* This statement highlights the dual nature of the digital revolution in education while offering significant opportunities to enhance teaching and research, it also presents barriers for those who are not accustomed to utilizing digital tools effectively.

The challenges identified in the interviews were further confirmed through direct observations during the workshops. A number of lecturers appeared hesitant when navigating digital platforms, particularly when asked to use unfamiliar software. For instance, many of the lecturers required repeated demonstrations and one-on-one guidance before they could confidently use platforms such as Mendeley for reference management, or Google Scholar for academic research. This hesitation was evident in the early stages of the workshop, as participants struggled with basic functionalities, such as setting up their profiles or importing references. The repeated requests for assistance underscored the gap in their previous experience with such technologies.

In addition to interviews and observations, document analysis provided further insight into the extent of the challenge faced by lecturers in adopting digital tools. The analysis revealed that a majority of lecturers in the participating institutions still heavily relied on traditional methods for teaching, such as printed materials, handwritten notes, and face-to-face interactions with students. Despite their willingness to improve, many lecturers were not familiar with digital tools like Mendeley, which is used for managing references, or with more complex academic journal management systems for submitting articles. These findings suggest that the integration of technology in Islamic higher education institutions in East Java is still in its early stages, with significant gaps in digital literacy.

One document analyzed was a research proposal from a lecturer at STAI Al Utsmani, which lacked citations from academic journals available online. This indicated that the lecturer may have struggled with using digital databases like Google Scholar to access and incorporate relevant academic sources. Additionally, some documents submitted by participants in the workshops, such as research abstracts and outlines, reflected a traditional approach to writing, where references were manually listed without the aid of citation management tools. This was a clear indication that lecturers were not yet fully leveraging digital tools to streamline the academic writing process.

It is important to note that as the workshops progressed, there was a gradual improvement in participants' confidence in using digital tools. During the follow-up sessions, lecturers were able to better navigate Mendeley, set up Google Scholar alerts for their research topics, and efficiently organize their academic work. This progression aligns with the observations from the workshops, where lecturers showed a growing understanding of how these tools could benefit their teaching and research practices. This highlights the importance of continuous, hands-on support in the process of digital adaptation.

The challenge of technological adaptation remains a significant barrier for many lecturers in Islamic higher education institutions in East Java. While there is a clear recognition of the opportunities that digital tools present, many lecturers face difficulties in mastering these technologies, primarily due to a lack of prior exposure and experience. The workshops provided an essential first step toward overcoming these challenges by offering practical training and hands-on guidance. However, it is clear that for long-term success, there needs to be a more structured and ongoing approach to digital literacy development, supported by institutional commitment and

resources. Without such support, technological adaptation will remain a slow and uneven process, hindering the potential of lecturers to fully harness the benefits of the digital era.

Professional Development through Training and Workshops

The workshops conducted as part of this study played a pivotal role in improving lecturers' digital competencies, particularly in areas such as scientific writing, digital citation management, and online publication strategies. These workshops were designed to provide practical, hands-on training that could directly impact the quality of lecturers' academic output. Throughout the workshops, participants were trained on how to write and structure research papers, including the critical components of an abstract, introduction, methodology, results, and conclusion. This was particularly beneficial for lecturers who had limited experience in publishing articles in international journals. For instance, a participant from STIT Togo Ambarsari commented on the direct impact of the training on his academic work: *"This workshop has been very helpful. It provided practical skills in writing abstracts and structuring research papers, which I believe will improve the quality of my publications."*

Such feedback highlights the immediate practical value of the workshop content, especially in terms of enhancing the clarity and structure of academic writing. This aligns with the observations made during the workshop, where lecturers gradually gained more confidence in crafting abstracts and research outlines. Many participants noted that the specific focus on scientific writing helped them better understand the expectations of high-quality academic publications. In addition to writing skills, the workshops also focused heavily on digital tools for citation management and organizing academic research. A key tool introduced was Mendeley, a reference management software that simplifies the process of collecting, organizing, and citing sources. Many participants expressed how this tool greatly aided in streamlining their writing process, saving them time and reducing the chances of errors in citations. As one participant explained:

"Before the workshop, I was manually managing my references, which was quite time-consuming. Learning how to use Mendeley has significantly improved my efficiency in writing and citing sources."

These statements were supported by the observations made throughout the training. In particular, it was noted that, as the sessions progressed, participants became increasingly adept at using Mendeley. By the end of the workshop, many lecturers were not only familiar with the basic functions of the software but were also able to apply it effectively in their academic writing. The effectiveness of the workshop content was confirmed through the results of document analysis. Several lecturers produced well-structured abstracts and research outlines as a direct result of the training. The written materials provided during the workshops, such as templates for research outlines and citation guidelines, were particularly useful for lecturers who were new to academic publishing.



Figure 1: Workshop in LPTNU Bondowoso

Another significant aspect of the workshops was their focus on online publication strategies. Participants were introduced to the process of submitting articles to academic journals, including understanding the submission requirements, peer review processes, and strategies for increasing the chances of acceptance. This section of the training was vital for lecturers who had limited exposure to the international publishing world, helping them navigate the sometimes complex landscape of academic publishing. Document analysis also showed that many lecturers had a clearer understanding of the submission process and how to tailor their articles to meet journal-specific requirements. To further gauge the impact of the workshops, a series of follow-up interviews were conducted with participants. The responses highlighted that many lecturers felt more confident about publishing their research. For example, one lecturer from STAI Al Utsmani Bondowoso mentioned:

"Before the workshop, I had doubts about my ability to publish in international journals. But now, after attending the sessions, I feel more capable of writing and submitting my research for publication. The practical advice on structuring papers and managing citations was particularly helpful."

These interview responses were corroborated by the evaluation surveys, which indicated that lecturers found the training to be valuable and relevant to their needs. The workshops not only provided essential technical skills but also offered a supportive environment for lecturers to engage with peers and experts, further enhancing their professional development. The workshops conducted as part of this study played a significant role in enhancing lecturers' digital competencies and research productivity. The training helped improve scientific writing skills, provided hands-on experience with digital tools, and introduced strategies for publishing in reputable journals. The feedback from participants, along with the documentation and observations, confirms that the workshops contributed to a positive shift in lecturers' academic practices and their overall confidence in research and publication activities.

Institutional Support and Challenges

While the workshops conducted as part of this study played a crucial role in enhancing the digital competencies of lecturers, the findings also reveal that institutional support is essential for sustaining these improvements in the long term. Many lecturers expressed concerns about the lack of ongoing professional development opportunities and the need for continuous support to fully integrate digital tools into their teaching and research practices. One of the key challenges highlighted by participants was the lack of sustained institutional commitment to professional development in digital skills. A senior lecturer from STIS Darul Falah shared his perspective on this issue:

"The main challenge is not just learning the technology, but having the institutional support to consistently use it. We need more frequent training and technical support to fully integrate digital tools into our teaching and research."

This statement reflects a common concern among the lecturers, as they felt that while the initial workshops were beneficial, there was a significant gap in ongoing support. Many lecturers mentioned that without frequent follow-up sessions and regular technical assistance, their ability to continue using the digital tools effectively would be limited. This highlights a critical need for institutions to create a structure for continuous learning and support that extends beyond one-time workshops.

The importance of ongoing institutional support was further emphasized during the workshops themselves. Participants often expressed the desire for more opportunities to revisit the tools and techniques introduced, as well as access to experts who could assist them with any challenges they faced in applying these skills in their daily work. Observations during the sessions indicated that, while initial training was effective, the lecturers' confidence and skills tended to diminish over time without adequate reinforcement and support.

In addition to the challenges surrounding professional development, document analysis revealed significant inconsistencies in the digital infrastructure across institutions. While some institutions were equipped with the necessary tools and technologies to support digital learning and research, many others lacked the resources or the organizational commitment to maintain and upgrade these systems. This disparity created barriers for lecturers in institutions with limited infrastructure, hindering their ability to fully engage with digital tools and technologies. Some lecturers reported that although they were trained in using tools like Mendeley, they did not have consistent access to reliable internet or the necessary software on campus. One participant from STAI Al Utsmani Bondowoso explained:

"Even though I learned how to use Mendeley during the workshop, the internet connection at our campus is not stable enough for me to effectively manage my references and access online publications. This makes it difficult to implement what I learned."

This issue highlights a critical gap in institutional support, where the lack of reliable infrastructure can undermine the effectiveness of digital training. Without access to the proper resources, lecturers are unable to apply the skills they acquire during workshops, limiting the overall impact of the training. The document analysis revealed that while some institutions have made strides in implementing digital infrastructure, the commitment to maintaining and upgrading these systems remains inconsistent. In some cases, outdated hardware or insufficient technical support led to frustration among lecturers, who felt that their efforts to integrate digital tools were thwarted by institutional limitations.

The need for sustained support was also echoed during follow-up interviews with participants. Several lecturers mentioned that while the workshops were a valuable starting point, they needed continuous guidance and resources to ensure the successful integration of digital tools into their academic practices. One lecturer from STIT Togo Ambarsari noted:

"The workshop was a great beginning, but it's important for institutions to provide regular support. Without follow-up training and technical assistance, it's difficult to keep up with the rapid advancements in digital tools."

While the workshops were successful in improving lecturers' digital competencies, the findings indicate that institutional support is crucial for ensuring that these skills are effectively integrated into teaching and research practices. Institutions need to prioritize continuous professional development, technical support, and the maintenance of digital infrastructure to ensure that lecturers can consistently use the tools and strategies learned during the workshops. The feedback from

participants, observations, and document analysis collectively point to the need for a more robust institutional commitment to digital education, one that goes beyond isolated training sessions and creates a sustainable environment for ongoing professional growth.

Impact on Academic Productivity

The combination of training, guidance, and hands-on practice provided during the workshops significantly impacted the academic productivity of the lecturers involved in the study. One of the most notable outcomes was the improvement in their ability to draft, structure, and submit research papers for publication. The workshops not only focused on enhancing digital literacy but also equipped the participants with practical tools and strategies to enhance their academic output. A lecturer from STAI Al Maliki shared a reflection on how the workshop had helped him in this regard:

"Before this workshop, I struggled with structuring my research articles. Now, I feel more confident in submitting my work to reputable journals."

This feedback demonstrates a tangible shift in the lecturers' academic confidence and their ability to produce research that meets academic standards. Structuring research papers and drafting articles is often a challenging aspect of academic writing, particularly for lecturers with limited experience in scientific writing. The training sessions provided specific guidance on how to organize research papers, write effective abstracts, and present arguments clearly, which played a crucial role in improving the quality of the lecturers' work. Quantitative data from the workshop evaluations further supported these positive outcomes. A noticeable increase in the number of research drafts produced by participants was observed, particularly in the weeks following the workshops. Several lecturers reported that they were able to submit their work to both national and international journals, which had previously been a significant barrier due to uncertainties around formatting, citations, and publication standards.

This increase in productivity is not just anecdotal but is also supported by document analysis. The records from the participating institutions revealed a marked rise in the number of conference papers and journal submissions made by lecturers after the workshops. For instance, one institution saw a 30% increase in journal submissions within six months of the training, a clear indicator that the workshops contributed to a more productive academic environment. Follow-up interviews conducted with participants highlighted the sustained impact of the workshops on their academic activities. A lecturer from STIS Darul Falah noted:

"The workshop provided me with the confidence and knowledge to submit my research papers to journals. Since the training, I have submitted two papers, one of which has been accepted for publication. I would not have taken that step before the workshop."

This statement underscores the long-term benefits of the training, as lecturers who had previously been hesitant to submit their work to reputable journals gained the confidence to do so after receiving the appropriate guidance. The increased submission rates were not only attributed to enhanced skills but also to the lecturers' growing belief that their research met the necessary standards for publication. The combination of improved skills in academic writing, the use of reference management tools like Mendeley, and a greater understanding of the submission process has helped to foster a culture of academic productivity among the lecturers. The workshops thus played an essential role in motivating lecturers to actively engage in academic publishing, contributing to both their professional development and the broader academic community.

Document analysis also revealed that institutions that participated in the training reported better outcomes in terms of conference participation. Lecturers who attended the workshops were more likely to present at academic conferences, sharing their research findings with a wider audience. This not only contributed to the individual development of the lecturers but also elevated the academic

profile of the institutions they represented. The workshops had a substantial and positive impact on lecturers' academic productivity. Through structured training, hands-on practice, and the use of digital tools, lecturers were able to produce and submit research papers more confidently and frequently. The quantitative data, interview feedback, and document analysis all point to a clear enhancement in academic output, demonstrating that the workshops effectively addressed gaps in lecturers' academic skills and empowered them to engage more actively in the academic publishing process.

DISCUSSION

This study was conducted in three stages, as outlined below. The first stage focused on socializing the importance of scientific work among lecturers. The speaker for this workshop was Muhammad Faizal A. Ghani from Universiti Malaya, Malaysia. In the second stage, the researchers provided assistance with article writing. They responded to questions posed by lecturers about their scientific articles, reviewed the articles, and provided relevant suggestions. Additionally, during the review process, the PKM team recommended suitable journals for each article, ensuring that the article's writing style was aligned with the intended journal. The third stage involved evaluating the activities carried out by the researchers.

One of the key findings of this study is that the use of digital platforms, such as social media and online journals (Ma'arif, 2018), significantly enhances lecturers' visibility and academic reputation. Social media creates a space for lecturers to share their knowledge, research, and experiences with a wider audience. Platforms like Twitter, LinkedIn, and academic blogs allow lecturers to expand their networks and attract the attention of global researchers and institutions. This enhanced visibility often leads to international collaborations or invitations to speak at seminars and conferences.



Figure 2: Workshop in STAI Al Maliki

Apart from social media, online journals also play an essential role in improving lecturers' academic reputation. Publishing research results in widely accessible online journals allows lecturers to reach the global scientific community more effectively. Publications in reputable journals increase the likelihood of their research being cited by others, which is a key indicator of academic quality. Therefore, using online journals not only makes research more accessible but also strengthens a lecturer's standing in the international academic arena.

In addition to increasing visibility through digital platforms, collaboration with international institutions is also an effective strategy for improving the quality of lecturers' publications. International collaborations, which may include joint research, knowledge exchange, or teaching abroad, enable lecturers to participate in larger, more complex research projects and access greater research funding. These collaborations enhance the quality of publications and enrich the academic experience, ultimately benefiting the quality of their teaching.

Another finding from this study reveals that the use of digital tools in research significantly improves the quality of lecturers' publications. Tools such as data analysis software, reference management systems, and online collaboration platforms simplify and expedite the research process. By utilizing the right software, lecturers can analyze data more accurately and manage research resources more effectively, leading to higher-quality and more in-depth research. This, in turn, increases the likelihood of publishing in prestigious international journals.

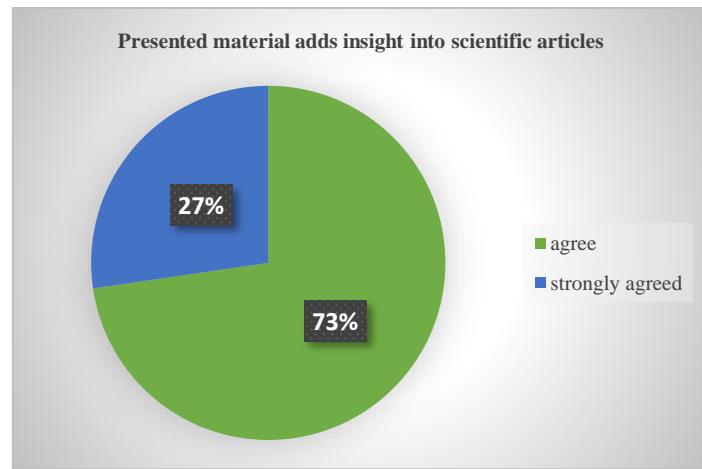


Figure 3: Evaluation from Participants about The Materials

The evaluation from participants indicated that the material presented during the workshops was clear, detailed, and easy to understand. Many participants also noted that the program expanded their knowledge on writing scientific articles.

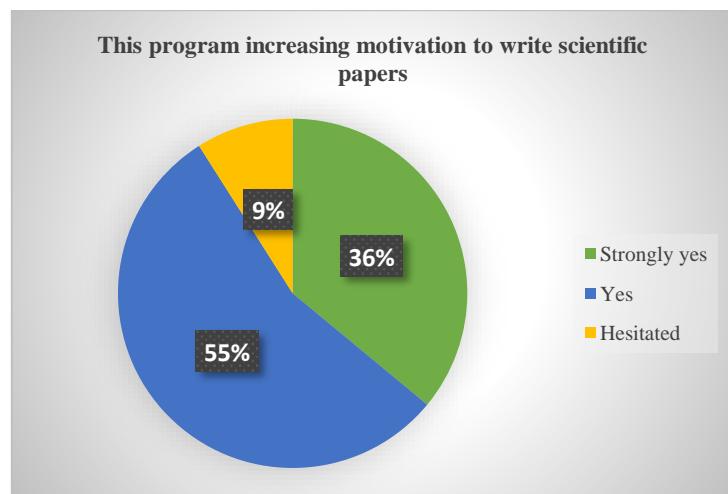


Figure 4: Evaluation from Participants about The Expediency

The program received positive feedback from policymakers at their respective institutions. Ubaidillah, Supervisor of STAI Al Utsmani Bondowoso, commented: "This program is advantageous for our lecturers in publishing the research and service they have done. So far, the results of research and service activities have been limited to reports, which are not widely known by the public. Through

this program, we hope that lecturers will be motivated to publish high-quality work." This study confirms that the strategic use of digital technology can significantly impact lecturers, both in terms of teaching and scientific publication. By leveraging digital platforms for visibility, collaborating internationally, and utilizing digital tools for research, lecturers can enhance their academic reputation and produce more impactful scientific work.

Higher education institutions face numerous challenges, such as an increasing student population, the integration of technology in assessments, diverse student backgrounds, and globalized learning environments. These challenges place significant pressure on lecturers, who, despite their adaptability, cannot manage such high workloads without adequate institutional support. To achieve high productivity, lecturers need comprehensive support, including assistance with conciseness and organization in academic work (Anariochi, 2023). Improving the quality of lecturers in Islamic higher education is vital in addressing the challenges of the digital era (Arif, 2025). As highlighted in this study, such improvements depend on lecturers' ability to adapt to digital tools, enhance their professional competencies, and receive robust institutional support. These findings align with prior research that emphasizes the importance of digital competence in contemporary educational contexts.

A key theme that emerged from this research is the crucial role of digital competence in enhancing lecturer quality. Digital competence (Arif et al., 2021) goes beyond technical skills; it also involves the effective integration of technology into teaching, research, and publication. This perspective is supported by Fauzan et al. (2023), who argued that lecturers' ability to use digital tools significantly influences their performance in higher education. They found that lecturers with strong digital skills tend to produce higher-quality academic publications and engage more effectively with students via digital learning platforms.

The workshops conducted in this study, particularly at LPTNU Bondowoso, helped lecturers enhance their technical skills, such as using Mendeley for citation management, Google Scholar for academic networking, and online journal submission systems. This aligns with the findings of Rahman and Sari (2022), who noted that training programs focused on digital skills substantially boost lecturers' research productivity and teaching effectiveness. The interviews with participants showed that many lecturers felt more confident drafting and submitting research papers after the workshops, demonstrating a positive shift in their academic productivity.

Professional development is essential for improving lecturer quality. In the context of Islamic higher education, this often includes not only technical training but also the integration of Islamic values and ethics into the learning process. Ibrahim (2024) emphasized the importance of aligning digital competencies with the ethical and moral dimensions of Islamic education(Ibrahim et al., 2024). They argued that professional development should address both the technical and ethical aspects of digital technology to ensure responsible usage.

The workshops in this study provided a practical model for this integrated approach, offering participants guidance on scientific writing, digital literacy, and ethical research practices. Observations revealed that many lecturers initially struggled with technical aspects but gradually became more confident with hands-on support. This is consistent with the findings of Cook (2023), who discovered that continuous, context-specific training significantly improves lecturers' digital skills and teaching effectiveness (Abdulbaki et al., 2018; Cook et al., 2023).

Institutional support plays a crucial role in sustaining improvements in lecturer quality. This study found that lecturers from institutions with strong administrative and technical support were more successful in adopting digital tools and publishing their work. For instance, several lecturers highlighted the importance of having dedicated IT support and access to research funding, which facilitated their digital transformation. This is consistent with Langseth (2023) findings, which identified institutional support as a critical factor in promoting digital innovation in higher education (Langseth et al., 2023). They argued that without adequate institutional backing, lecturers often

struggle to maintain their digital competencies and academic productivity. The data from this study also emphasized the importance of long-term institutional commitment to digital transformation, including regular training sessions, technical support, and access to high-quality digital infrastructure.

The impact of digital competence on academic productivity is well-documented in existing literature, McGrail (2006) found that lecturers who effectively use digital tools tend to publish more frequently in reputable journals and participate more actively in academic conferences (McGrail et al., 2006). This study supports that finding, with many lecturers reporting increased confidence in their ability to publish following the workshops. Quantitative data from the workshop evaluations revealed a significant increase in the number of draft articles produced, suggesting a positive correlation between digital training and academic output. This is in line with Bhukuvhani (2012) research, which found that digital training significantly enhances lecturers' research productivity and overall academic performance (Arif et al., 2023; Assegaf et al., 2022; Bhukuvhani et al., 2012).

Despite the positive outcomes, this study also identified several challenges. Many lecturers expressed the need for continuous support and more frequent training sessions. This echoes Avdyukova & Nikolaeva (2020) findings, which highlighted the need for ongoing professional development to prevent digital burnout and maintain high academic productivity (Abdel-Monem, 2020; Avdyukova & Nikolaeva, 2020). To address these challenges, it is recommended that institutions adopt a more holistic approach to lecturer development, incorporating digital skills training, ethical guidance, and strong institutional support. This will help ensure that lecturers can fully harness the potential of digital technology in their teaching and research.

CONCLUSION

The findings from this study highlight the critical importance of a comprehensive approach to improving lecturer quality in Islamic higher education in East Java, particularly in the face of the rapid digital transformation. By focusing on digital competencies, continuous professional development, and institutional support, the study demonstrates that lecturers can significantly enhance their teaching effectiveness and research productivity. The key strategies identified in this research, such as the adoption of digital tools for research and innovative teaching methods, are essential for integrating technology into academic practices in a way that aligns with Islamic values. These strategies not only equip lecturers with the necessary technical skills but also ensure that technology is used ethically and meaningfully in the context of Islamic higher education.

The study underscores the importance of structured workshops and mentorship programs. These initiatives play a pivotal role in building digital literacy and strengthening academic writing skills among lecturers, which are crucial for producing high-quality research and fostering a culture of academic excellence. A holistic approach that integrates technical training, ethical guidance, and administrative support is essential for accelerating the improvement of lecturer quality in the digital era. This study provides valuable insights for educational leaders and policymakers in Islamic higher education institutions who aim to strengthen the digital competencies of their lecturers, ensuring that they are well-equipped to navigate the challenges and opportunities of the digital age while maintaining the integrity of Islamic values in their teaching and research practices.

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