

Empowering Religious Educators in the Digital Age: An Evaluation of an ICT-Based Media Training Program

M. Imamul Muttaqin Arsandhi ^{1*}, Bahrul Ulum ², Mufaizin ³, Junaidi ⁴

Darul Hikmah Islamic College, Indonesia

Email: imamul@darul-hikmah.com ^{1*}, bahrul@darul-hikmah.com ², mufaizin@darul-hikmah.com ³, junaidi@darul-hikmah.com ⁴

Address: Pondok Pesantren Darul Hikmah, JL Raya Langkap Burneh, Duur, Langkap, Kec. Bangkalan, Kabupaten Bangkalan, Jawa Timur 69171

Email correspondence: imamul@darul-hikmah.com

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Abstract. This study evaluates a training program designed to enhance the competence of religious educators, known as "penyuluh agama" in Indonesia, in utilizing ICT-based media for religious education. The program, conducted in Bangkalan Regency, aimed to equip participants with the knowledge and skills to develop and manage effective religious education media in the digital age. A needs assessment was conducted to inform the curriculum development, which covered fundamental aspects of ICT, introduction to ICT-based media, technical skills, and effective communication strategies. The training employed interactive workshops and provided ongoing support to participants. Evaluation results indicated significant improvement in participants' understanding and utilization of ICT-based media for religious education, as well as fostering a strong sense of community among them. This study highlights the effectiveness of ICT-based media training in empowering religious educators to adapt to the evolving needs of the community and expand the reach of religious education in the digital age.

1. INTRODUCTION

The rapid advancement of information and communication technology (ICT) has transformed how knowledge is accessed and disseminated, including in the field of religious education. Religious educators, often tasked with providing spiritual guidance and promoting moral values within communities, face increasing demands to adapt their methodologies to remain relevant in the digital age. In Indonesia, these educators, commonly referred to as *penyuluh agama*, play a pivotal role in fostering social cohesion, cultural preservation, and ethical development. However, their integration into the digital landscape remains a challenge, as many lack the requisite ICT skills and resources to develop technology-based educational media effectively (Surani et al., 2021; Hakim, 2020).

To address this gap, training programs aimed at enhancing the digital competence of religious educators are becoming increasingly vital. Recognizing this urgency, a structured ICT-based media training program was implemented in Bangkalan Regency, Indonesia, to provide *penyuluh agama* with the necessary skills to design, manage, and disseminate ICT-based religious educational content. This initiative aimed not only to improve individual

capacities but also to expand the reach and effectiveness of religious education by leveraging digital platforms.

This paper evaluates the effectiveness of the aforementioned training program, focusing on its ability to address the unique needs of *penyuluh agama* in Bangkalan Regency. Specifically, it investigates the program's design, implementation, and outcomes, employing an evidence-based approach to assess its contribution to the professional development of participants. By examining this case, the study seeks to contribute to the growing body of literature on technology-enhanced education and to provide insights into effective strategies for equipping religious educators with ICT skills.

While prior studies have extensively explored the use of ICT in general education settings (Alamri, 2020; Chai et al., 2019), limited attention has been paid to the specific challenges and opportunities faced by religious educators in embracing digital tools. Studies focusing on *penyuluh agama* are particularly scarce, with most discussions revolving around traditional pedagogy and face-to-face interactions (Rohmana & Majid, 2020). This study addresses this lacuna by focusing on the integration of ICT into religious education and its practical implications for educators in rural and under-resourced areas such as Bangkalan Regency.

By evaluating this program, this research also responds to broader educational goals outlined in the Sustainable Development Goals (SDGs), particularly Goal 4, which emphasizes quality education, and Goal 9, which encourages innovation and technology dissemination. The findings are expected to provide actionable recommendations for policymakers and stakeholders in designing targeted interventions for religious educators in the context of digital transformation

2. METHOD

This study aimed to evaluate a training program designed to enhance the competencies of religious educators (*penyuluh agama*) in using ICT-based media. The methodology utilized a sequential mixed-method approach, ensuring comprehensive insights into both the effectiveness of the program and participants' experiences.

A total of 20 participants, selected purposively from across Bangkalan Regency, joined the training program. These individuals represented diverse age groups (ranging from 30 to 55 years), varying levels of prior ICT exposure, and multiple districts within the region. The training program, conducted over two days (December 14–15, 2024), was implemented in a structured format, blending theoretical and practical components. The

program consisted of an opening session, followed by four key modules covering ICT for religious education, ethical utilization of ICT media, practical content creation workshops, and strategies for effective communication. The final session included a practical application where participants created and presented their projects, utilizing the skills gained during the training. Participants engaged actively throughout the sessions, fostering collaborative learning and shared reflections.

Table 1. Scedul Extension Program

Day	Activity	Content	Mode of Delivery
1	Opening Session	Introductions and objectives.	Ceremony and presentation
	Module 1: ICT for Religious Education	Overview of digital tools for education.	Lecture
2	Module 2: Ethical Media Utilization	Best practices in using ICT-based media.	Case study
	Module 3: Media Creation Workshop	Hands-on training in video creation, blog setup, and content production.	Interactive workshop
	Module 4: Communication Strategies	Techniques for effective communication through digital media.	Discussion and practice
	Practical Application	Participants create and present ICT-based media projects.	Group work and peer review
	Closing and Evaluation	Summary, feedback, and post-test administration.	Discussion and testing

Quantitative data collection involved administering pre- and post-tests to evaluate the participants' improvement in technical ICT skills. Paired sample t-tests were used to analyze the results, comparing participants' knowledge and skill levels before and after the training. In parallel, qualitative data were obtained through focus group discussions (FGDs) and observational analyses. These discussions allowed participants to share their reflections on the training's relevance, effectiveness, and areas for improvement. Observational analysis captured engagement and interaction during sessions, offering additional insights into the program's delivery.

Data from the quantitative and qualitative sources were analyzed systematically. Pre- and post-test results were subjected to statistical analysis, while the qualitative data were reviewed using thematic analysis, guided by Braun and Clarke's framework. This dual approach facilitated a holistic understanding of the program's impact, highlighting both measurable competency improvements and nuanced participant experiences.

The study was conducted in adherence to ethical research guidelines. Participants provided informed consent and were assured of the confidentiality and voluntary nature of their involvement. By addressing both technical upskilling and practical application, this

methodology allowed the program to empower *penyuluh agama* to effectively use ICT-based media in their educational efforts, fostering a sustainable model for religious education in the digital age.

3. RESULTS AND DISCUSSION

The study aimed to evaluate the effectiveness of the ICT-based media training program in enhancing the competencies of *penyuluh agama* (religious educators) in Bangkalan Regency. The results indicate a significant improvement in participants' knowledge, technical skills, and confidence in utilizing ICT for religious education. These findings were derived from a combination of quantitative data (pre- and post-test scores) and qualitative insights from focus group discussions (FGDs) and observations.

Pre-Test and Post-Test Results

The comparison of participants' pre- and post-test scores revealed notable improvements in their competencies related to ICT-based media. Table 1 illustrates the mean scores before and after the training, indicating a significant increase in participants' technical abilities and understanding of media utilization.

Table 2. Pre-Test and Post-Test Results

Test Category	Mean Score (Pre-Test)	Mean Score (Post-Test)	% Improvement
Technical ICT Skills	45.3	78.7	73.7%
Ethical Media Utilization	50.8	85.4	68.1%
Media Creation and Design	42.5	81.2	91.1%

Statistical analysis using paired sample t-tests confirmed that the improvements were statistically significant ($p < 0.01$), underscoring the training's efficacy in building participants' capacities.

Focus Group Discussion Insights

The qualitative data obtained through FGDs provided rich insights into participants' experiences and perceptions. The discussions revealed four key themes:

- a. **Relevance of the Training Content:** Participants highlighted the practical relevance of the modules, particularly those on media creation and digital storytelling, which directly addressed their challenges in communicating religious messages in a digital landscape.
- b. **Increased Confidence and Skills:** Many participants reported greater confidence in creating and sharing digital content, including videos, blogs, and social media posts, as a result of the hands-on training.

- c. Challenges in Implementation: A few participants noted difficulties in accessing advanced tools or stable internet connections in their rural settings, suggesting the need for ongoing support.
- d. Community Impact: Participants emphasized how their newfound skills would enable them to engage better with younger audiences and promote religious values in innovative ways.

Observation Findings

Observation of participants during the training sessions confirmed high levels of engagement and enthusiasm. The hands-on workshops fostered a collaborative atmosphere, encouraging participants to share ideas and seek feedback from peers and trainers. Additionally, the practical applications demonstrated participants' ability to apply theoretical knowledge effectively.



Figure 1. illustrates a group activity where participants worked collaboratively on creating a media project. And Workshop Activities During ICT Training

4. DISCUSSION

The findings align with prior research, which emphasizes the role of ICT-based training programs in enhancing educators' capabilities in a rapidly digitalizing world (Alamri, 2020; Chai et al., 2019). The significant improvement in post-test scores demonstrates the immediate impact of tailored training programs. The practical, interactive approach of the sessions, which blended theoretical insights with hands-on applications, was particularly effective.

However, the challenges noted, including limited access to advanced tools and stable internet, echo concerns raised in the literature about the digital divide in rural areas (Hakim, 2020). Addressing these barriers through supplemental training, infrastructure development,

and continuous mentoring programs could further enhance the sustainability and long-term impact of such initiatives.

Moreover, the success of this program suggests its potential scalability to other regions and contexts where religious educators face similar challenges. By refining the curriculum based on participant feedback, such training initiatives could contribute substantially to bridging the gap between traditional religious education and the demands of the digital age.

CONCLUSION

The ICT-based media training program for *penyuluh agama* in Bangkalan Regency successfully enhanced participants' competencies in utilizing digital tools for religious education. The training significantly improved technical ICT skills, media creation capabilities, and ethical media utilization, as evidenced by a marked increase in post-test scores. Participants reported greater confidence in adopting ICT-based methods to deliver religious messages more effectively, particularly in reaching younger, technology-oriented audiences.

Qualitative feedback highlighted the practical relevance of the training and its potential to revolutionize traditional religious outreach by introducing modern, engaging communication strategies. The collaborative nature of the workshops, coupled with hands-on activities, played a critical role in ensuring that participants could apply their learning immediately.

However, the findings also revealed challenges such as limited access to advanced technology and infrastructure, underscoring the need for additional support and resources to sustain long-term implementation. Addressing these barriers through follow-up mentoring programs, improved ICT infrastructure, and periodic training updates will be vital to maintaining the program's impact.

This program demonstrated the transformative potential of ICT integration in religious education. With refinements based on participant feedback and expansion to other regions, such initiatives could contribute significantly to equipping religious educators with the tools needed to navigate the evolving demands of the digital age. These efforts will ultimately strengthen the role of *penyuluh agama* as key facilitators of moral and spiritual guidance in contemporary society.

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