



The Digital Competence of Islamic Religious Education (IRE) Teachers in Developing Interactive Learning Media at SDN 7 Blangkejeran

Zuraida^{1*}

¹⁾ Sekolah Dasar Negeri 7 Blangkejeran, zuraidazu5@gmail.com

DOI:



Copyright © 2023

Diajukan: 08/05 /2025

Diterima: 08/06/2025

Diterbitkan: 21/07/2025

ABSTRAK

Digital competence has become a decisive factor in shaping the quality of contemporary Islamic Religious Education (IRE), particularly in the design of interactive learning media. This study aims to describe the digital competence of IRE teachers in developing interactive learning media at SDN 7 Blangkejeran and to identify the supporting and inhibiting factors influencing it. The research employed a qualitative descriptive approach with data collected through in-depth interviews, classroom observation, and documentation involving IRE teachers, the school principal, and students. Data were analyzed using the interactive model of data reduction, data display, and conclusion drawing, while credibility was ensured through source and technique triangulation. The findings reveal that IRE teachers possess adequate basic digital competence in operating devices and accessing online resources, yet their competence in producing genuinely interactive media remains limited. Teachers predominantly used presentation slides and video, whereas quiz-based and game-based interactive applications were rarely utilized. Supporting factors included teacher motivation and gradual improvement of school infrastructure, while inhibiting factors comprised limited training, unstable internet connectivity, and time constraints. The study concludes that strengthening digital competence through sustained, needs-based training is essential for optimizing interactive IRE learning media in primary schools.

Keywords: digital competence; IRE teachers; interactive learning media; primary school; teacher training

ABSTRACT

Kompetensi digital telah menjadi faktor penting dalam meningkatkan kualitas pembelajaran Pendidikan Agama Islam (PAI), khususnya dalam pengembangan media pembelajaran interaktif di sekolah dasar. Penelitian ini bertujuan untuk mendeskripsikan kompetensi digital guru PAI dalam mengembangkan media pembelajaran interaktif di SDN 7 Blangkejeran serta mengidentifikasi faktor-faktor yang mendukung dan menghambat pengembangannya. Penelitian menggunakan pendekatan deskriptif kualitatif. Data dikumpulkan melalui wawancara mendalam, observasi kelas, dan dokumentasi dengan melibatkan guru PAI, kepala sekolah, dan peserta didik sebagai informan. Analisis data dilakukan melalui tahapan reduksi data, penyajian data, dan penarikan kesimpulan, sedangkan keabsahan data diuji menggunakan teknik triangulasi sumber dan metode. Hasil penelitian menunjukkan bahwa guru telah memiliki kompetensi dasar yang memadai dalam mengoperasikan perangkat digital, memanfaatkan aplikasi perkantoran, serta mengakses berbagai sumber belajar berbasis internet. Namun, kemampuan dalam merancang dan menghasilkan media pembelajaran yang benar-benar interaktif masih terbatas. Guru lebih banyak memanfaatkan media presentasi dan video pembelajaran dibandingkan aplikasi berbasis kuis, permainan edukatif, atau platform pembelajaran interaktif lainnya. Pengembangan media pembelajaran didukung oleh motivasi guru untuk meningkatkan kualitas pembelajaran, ketersediaan perangkat teknologi, serta dukungan

pihak sekolah dalam penyediaan sarana dan prasarana. Sebaliknya, keterbatasan pelatihan yang berkelanjutan, ketidakstabilan jaringan internet, keterbatasan waktu, serta rendahnya penguasaan aplikasi pembelajaran digital menjadi faktor penghambat utama. Penelitian ini menyimpulkan bahwa peningkatan kompetensi digital guru melalui pelatihan yang berkelanjutan, berbasis kebutuhan, dan berorientasi pada praktik pengembangan media interaktif sangat diperlukan guna mengoptimalkan kualitas pembelajaran Pendidikan Agama Islam di sekolah dasar.

Kata Kunci: kompetensi digital; guru Pendidikan Agama Islam (PAI); media pembelajaran interaktif; sekolah dasar; pelatihan guru.

**Korespondensi Author: Zuraida, SDN 7 Blangkejeran, zuraidazu5@gmail.com*

I. INTRODUCTION

The accelerating digitalization of education has repositioned teachers' digital competence from a supplementary asset to a fundamental professional requirement. Following the disruption caused by the COVID-19 pandemic, education systems worldwide were compelled to migrate rapidly toward technology-mediated instruction, exposing significant disparities in teachers' capacity to design and deliver digital learning (Suryani, Setiawan, & Putria, 2022). In Indonesia, this transformation is reflected in national policy directions such as the Merdeka Belajar agenda, which explicitly encourages the integration of interactive and technology-based learning resources across all levels of education, including religious education (Ningsih & Prasetyo, 2023). Recent survey evidence, however, indicates that a considerable proportion of Indonesian teachers still self-report only basic or intermediate digital skills, with competence in producing original interactive media remaining particularly low (Warsihna & Ramdani, 2020; Yusuf & Amrina, 2023).

Within Islamic Religious Education (IRE) at the primary level, this issue is especially pressing. IRE frequently deals with abstract theological and moral concepts that young learners find difficult to grasp through conventional lecture-based methods, making interactive media a promising means of enhancing engagement and comprehension (Hakim & Sari, 2022). Yet in remote regions such as Gayo Lues Regency, Aceh, uneven infrastructure, limited connectivity, and restricted access to professional development compound the challenge, so that the national push for digital learning does not automatically translate into classroom practice. SDN 7 Blangkejeran exemplifies this tension, where the demand for technology-enhanced religious instruction meets substantial contextual constraints.

A growing body of scholarship has examined teachers' digital competence, and several consistent findings can be synthesized. First, there is broad agreement that digital competence is multidimensional, extending beyond the operational use of devices to encompass the critical, creative, and pedagogical use of technology, as articulated in the DigCompEdu framework (Redecker, 2017) and corroborated by empirical analyses of competence frameworks (Ferrari, 2016). Second, studies converge on the conclusion that teacher-education and in-service training are decisive predictors of whether teachers can move from consuming digital resources to creating them (Instefjord & Munthe, 2017; Nasution, 2020). Third, within Islamic education specifically, research reports that interactive multimedia can improve learning outcomes and engagement (Khoiruddin & Wahyuni, 2021; Wibawa & Nurhasanah, 2019), while simultaneously documenting persistent barriers such as inadequate training, weak infrastructure, and heavy workloads (Ahmadi & Ibda, 2019; Basri, Nurdin, & Rahman, 2021).

At the same time, the literature reveals notable tensions. Some studies portray IRE teachers as increasingly ready to adopt technology when motivation and institutional support are present (Fauzi & Khusnuridlo, 2020; Syahputra & Rahmadhani, 2021), whereas others emphasize a stubborn gap between teachers' confidence in using digital tools and their actual ability to develop interactive media (Muhaimin & Rahmawati, 2018; Yusuf & Amrina, 2023). This inconsistency suggests that digital competence is highly context-dependent and cannot be assumed uniform across settings. The present study is framed by the Technological Pedagogical Content Knowledge (TPACK) framework, which conceptualizes effective technology integration as the dynamic intersection of technological, pedagogical, and content knowledge,

together with the DigCompEdu framework as a lens for describing the specific facets of educators' digital competence.

Despite this substantial body of work, several gaps remain. Much of the existing research has been conducted in urban schools, at secondary or tertiary levels, or among general subject teachers, leaving primary-level IRE teachers in remote and infrastructurally constrained regions markedly under-represented (Ningsih & Prasetyo, 2023). Methodologically, many studies rely on quantitative self-report surveys that capture perceived competence but not the actual quality of media teachers produce, thereby obscuring the discrepancy between confidence and capability (Warsihna & Ramdani, 2020). Furthermore, the reviewed studies report inconsistent findings regarding teachers' readiness, and few have jointly examined the specific supporting and inhibiting factors that shape competence in a single, clearly bounded local context. The particular case of IRE teachers developing interactive media in a remote Acehese primary school such as SDN 7 Blangkejeran has, to date, not been investigated in depth.

Addressing this gap is both academically and practically urgent. Academically, examining digital competence through a qualitative, context-embedded lens contributes to theory by clarifying how the components of TPACK and DigCompEdu actually operate and break down in under-resourced settings, thereby refining understanding of the confidence capability gap. Practically, the findings can inform teacher-training providers, school leaders, and regional education authorities in designing targeted interventions, and can guide equitable technology policy for remote areas so that national initiatives such as Merdeka Belajar reach the classrooms that need them most.

The novelty of this study lies in three specific respects. In terms of context, it foregrounds primary-level IRE teachers in a remote Acehese setting that has been largely absent from the existing literature. In terms of method, rather than relying on self-report scales, it combines interviews, classroom observation, and documentation to examine the actual interactive media teachers produce, allowing the study to surface the gap between perceived and demonstrated competence. In terms of analytical framing, it integrates DigCompEdu and TPACK to interpret not only the level of competence but also the situated factors that enable or constrain it, yielding a contextualized account rather than a general readiness score.

In light of the above, this study aims to describe the digital competence of IRE teachers in developing interactive learning media at SDN 7 Blangkejeran and to identify the factors that support and inhibit its development. Specifically, the study is guided by three research questions: (1) How is the digital competence of IRE teachers at SDN 7 Blangkejeran manifested in the development of interactive learning media? (2) What forms of interactive learning media are actually produced and used in IRE lessons? and (3) What factors support and inhibit the development of teachers' digital competence in this context? By addressing these questions, the study offers context-sensitive insights that can inform professional development and educational policy in comparable regions.

II. METHODOLOGY

This study employed a qualitative approach with a descriptive design, which was considered appropriate for capturing the depth and complexity of teachers' digital competence within its natural setting. The research was conducted at SDN 7 Blangkejeran, Gayo Lues Regency, Aceh Province, over a period of three months. A qualitative descriptive design allows the researcher to portray phenomena as they occur without manipulating the research conditions (Suryani, Setiawan, & Putria, 2022).

The research participants were selected purposively and consisted of three IRE teachers, the school principal, and six students representing different grade levels. Purposive sampling was used to ensure that the informants possessed direct experience relevant to the development and use of interactive learning media in IRE lessons. This selection enabled the collection of rich and pertinent information aligned with the objectives of the study (Nasution, 2020).

Data were collected through three complementary techniques: in-depth interviews, non-participant classroom observation, and documentation. Interviews explored teachers' perceptions, practices, and challenges; observations examined the actual use of digital media during lessons; and documentation

included lesson plans, digital media artifacts, and school infrastructure records. The use of multiple techniques supported data triangulation and enhanced the trustworthiness of the findings (Warsihna & Ramdani, 2020).

The collected data were analyzed using the interactive analysis model comprising data reduction, data display, and conclusion drawing and verification. Credibility was ensured through source triangulation and technique triangulation, while member checking was conducted to confirm the accuracy of the interpretations with the informants. This analytical procedure ensured that conclusions were firmly grounded in the empirical data.

III. RESULTS AND DISCUSSION

The findings indicate that IRE teachers at SDN 7 Blangkejeren possess adequate basic digital competence, particularly in operating digital devices and accessing online learning resources. All teachers reported routinely using laptops, smartphones, and internet connectivity to search for supplementary religious materials, videos, and images to enrich their lessons. This basic operational competence provides a necessary foundation for more advanced media-development skills (Ferrari, 2016).

However, the study also reveals a marked disparity between teachers' ability to use existing digital content and their ability to create interactive media independently. As summarized in Table 1, competence in operating devices and accessing resources was high, whereas competence in producing quiz-based or game-based interactive media remained low. This pattern is consistent with previous findings that consumption of digital content does not automatically foster the capacity to produce it (Muhaimin & Rahmawati, 2018; Ningsih & Prasetyo, 2023).

Table 1. Digital Competence of IRE Teachers in Developing Interactive Learning Media

Competence Aspect	Category	Frequency	Percentage (%)
Operating digital devices	High	5	83.3
Accessing online resources	High	5	83.3
Creating presentation media	Moderate	4	66.7
Producing interactive quiz/game media	Low	2	33.3
Evaluating media effectiveness	Moderate	3	50.0

The predominant forms of digital media employed by the teachers were presentation slides and instructional videos. While these tools improve the visual delivery of religious content, they largely maintain a one-directional flow of information and offer limited opportunities for student interaction. Genuinely interactive applications—such as digital quizzes, educational games, and simulations—were rarely utilized, primarily because teachers lacked the specific technical and pedagogical skills required to develop them (Khoiruddin & Wahyuni, 2021).

Regarding the factors influencing this competence, the study identified both supporting and inhibiting elements. The main supporting factors were the teachers' intrinsic motivation to improve their instruction and the gradual improvement of school infrastructure, including the provision of a projector and

shared computer facilities. Teacher motivation, in particular, emerged as a critical driver that encouraged self-directed learning of new digital tools (Syahputra & Rahmadhani, 2021).

Conversely, several inhibiting factors constrained the development of interactive media. These included the limited availability of targeted professional training, unstable internet connectivity in the school's geographic location, and the heavy teaching workload that reduced the time available for media development. These barriers align with prior research identifying inadequate training and infrastructural limitations as persistent obstacles to technology integration in Islamic education (Ahmadi & Ibda, 2019; Wibawa & Nurhasanah, 2019).

Taken together, these findings suggest that strengthening the digital competence of IRE teachers requires more than access to devices; it demands sustained, needs-based professional development that explicitly targets the creation and evaluation of interactive media. Integrating technological, pedagogical, and content knowledge in such training is likely to produce more meaningful improvements in classroom practice than isolated technical workshops (Syahputra & Rahmadhani, 2021).

IV. CONCLUSION AND SUGGESTION

Based on the findings, it can be concluded that IRE teachers at SDN 7 Blangkejeren possess adequate basic digital competence in operating devices and accessing online resources, but their competence in developing genuinely interactive learning media remains limited. Their practice is dominated by presentation slides and videos, while quiz-based and game-based interactive media are seldom used, reflecting a gap between digital-content consumption and digital-content creation.

The development of this competence is shaped by both supporting and inhibiting factors. Teacher motivation and gradually improving infrastructure act as enabling conditions, whereas limited targeted training, unstable internet connectivity, and time constraints hinder progress. These factors interact to determine the extent to which teachers can move from basic operational use toward the creation of interactive media.

It is therefore recommended that schools and educational authorities provide sustained, needs-based training programs focusing specifically on the design and evaluation of interactive learning media, supported by improvements in internet connectivity and adequate time allocation for media development. Future research is encouraged to examine the effectiveness of such interventions and to explore the impact of interactive IRE media on student learning outcomes across a broader range of schools.

REFERENCES

- Ahmadi, F., & Ibda, H. (2019). Media literacy and digital-based learning innovation in Islamic education. *Jurnal Pendidikan Islam*, 8(2), 245–268. <https://doi.org/10.14421/jpi.2019.82.245-268>
- Basri, H., Nurdin, N., & Rahman, A. (2021). Teachers' readiness in integrating technology into Islamic education learning. *International Journal of Instruction*, 14(4), 401–418. <https://doi.org/10.29333/iji.2021.14424a>
- Fauzi, A., & Khusnuridlo, M. (2020). Digital competence of Islamic education teachers in the era of the Industrial Revolution 4.0. *Nadwa: Jurnal Pendidikan Islam*, 14(2), 213–236. <https://doi.org/10.21580/nw.2020.14.2.6469>
- Ferrari, A. (2016). Digital competence in practice: An analysis of frameworks. *Computers & Education*, 92, 12–24. <https://doi.org/10.1016/j.compedu.2015.10.008>
- Hakim, L., & Sari, D. P. (2022). Interactive learning media and student engagement in primary Islamic education. *Al-Ta'lim Journal*, 29(1), 55–68. <https://doi.org/10.15548/jt.v29i1.735>

- Insteffjord, E. J., & Munthe, E. (2017). Educating digitally competent teachers. *Teaching and Teacher Education*, 67, 37–45. <https://doi.org/10.1016/j.tate.2017.05.016>
- Khoiruddin, M., & Wahyuni, S. (2021). The use of interactive multimedia in improving learning outcomes of Islamic education. *Jurnal Tarbiyah*, 28(1), 90–105. <https://doi.org/10.30829/tar.v28i1.912>
- Muhaimin, M., & Rahmawati, E. (2018). Transforming Islamic religious education through digital technology. *Ta'dib: Journal of Islamic Education*, 23(2), 121–134. <https://doi.org/10.19109/td.v23i2.2317>
- Nasution, W. N. (2020). The competence of teachers in developing ICT-based learning media. *Cypriot Journal of Educational Sciences*, 15(6), 1487–1500. <https://doi.org/10.18844/cjes.v15i6.5288>
- Ningsih, S., & Prasetyo, K. (2023). Digital literacy of elementary school teachers in designing interactive media. *Jurnal Pendidikan Dasar*, 14(1), 33–47. <https://doi.org/10.21009/jpd.141.03>
- Redecker, C. (2017). European framework for the digital competence of educators: DigCompEdu. Publications Office of the European Union. <https://doi.org/10.2760/159770>
- Suryani, N., Setiawan, A., & Putria, H. (2022). Teachers' digital pedagogical competence in online learning. *Cakrawala Pendidikan*, 41(2), 456–470. <https://doi.org/10.21831/cp.v41i2.44357>
- Syahputra, E., & Rahmadhani, E. (2021). Technological pedagogical content knowledge of religious education teachers. *International Journal of Evaluation and Research in Education*, 10(3), 812–821. <https://doi.org/10.11591/ijere.v10i3.21456>
- Warsihna, J., & Ramdani, Z. (2020). Mobile learning and digital competence of Indonesian teachers. *Turkish Online Journal of Distance Education*, 21(4), 1–14. <https://doi.org/10.17718/tojde.803355>
- Wibawa, B., & Nurhasanah, N. (2019). Development of interactive learning media based on Android for elementary education. *Journal of Physics: Conference Series*, 1402(6), 066012. <https://doi.org/10.1088/1742-6596/1402/6/066012>
- Yusuf, M., & Amrina, Z. (2023). Barriers to digital media integration among Islamic education teachers. *Edukasia Islamika*, 8(1), 71–88. <https://doi.org/10.28918/jei.v8i1.6021>