

# Integrating Wordwall in Islamic Religious Education: A Phenomenological Study of Pedagogical Transformation in Indonesian Primary Schools

**Salsabila I'tilaful Adzibah<sup>1</sup>, Desni Mardiah<sup>2</sup>, Nur Muhammad Gasmi<sup>3</sup>**

<sup>1,2</sup>Universitas Islam Negeri Sunan Kalijaga Yogyakarta, Indonesia, <sup>3</sup>Universitas Islam Negeri Raden Intan Lampung, Indonesia

*24204011034@student.uin-suka.ac.id<sup>1</sup>, 24204011040@student.uin-suka.ac.id<sup>2</sup>,  
nur.gasmi49@gmail.com<sup>3</sup>*

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**Abstract:** The integration of digital technology in education has driven pedagogical innovation across various disciplines, including Islamic Religious Education (IRE). This study investigates the lived experiences of primary school IRE teachers in using Wordwall, a web-based interactive learning platform. Employing a descriptive phenomenological approach, the research explores teachers' motivations, classroom implementations, and perceived impacts on student engagement and understanding. Data were collected through in-depth interviews, classroom observations, and document analyses involving two purposively selected educators from different institutional contexts. The findings reveal three key themes: a shift in teachers' perceptions toward technology, with increased confidence and digital self-efficacy; the emergence of a more adaptive and creative professional identity; and the transformation of pedagogical practices from conventional content delivery to participatory, game-based learning. Despite notable challenges, such as limited infrastructure and initial unfamiliarity with digital tools, the study underscores Wordwall's role as a catalyst for pedagogical reflection and renewal. These findings suggest that targeted institutional support, including training and peer collaboration, is essential for sustainable digital innovation in IRE. Limitations include the small sample size and localized setting. Future research should expand to diverse educational contexts to further explore scalable models of technology integration in religious instruction.

**Abstrak:** Perkembangan teknologi digital telah mendorong terjadinya inovasi dalam proses pembelajaran, termasuk dalam Pendidikan Agama Islam (PAI) di tingkat sekolah dasar. Penelitian ini bertujuan untuk mengeksplorasi secara mendalam pengalaman guru PAI dalam memanfaatkan platform Wordwall sebagai media pembelajaran interaktif berbasis web. Dengan menggunakan pendekatan fenomenologis deskriptif, penelitian ini mengungkap makna subjektif dari pengalaman dua guru PAI di Yogyakarta dan Purworejo yang secara aktif menggunakan Wordwall. Data diperoleh melalui wawancara mendalam, observasi kelas, dan analisis dokumen pembelajaran. Hasil penelitian menunjukkan bahwa penggunaan Wordwall mendorong perubahan sikap guru terhadap teknologi, memperkuat identitas profesional sebagai fasilitator digital yang kreatif, dan menghasilkan transformasi pedagogis menuju pembelajaran yang partisipatif dan kontekstual. Namun demikian, hambatan teknis seperti keterbatasan infrastruktur dan keterampilan digital masih menjadi tantangan utama dalam implementasi Wordwall secara optimal. Studi ini menekankan pentingnya pelatihan berkelanjutan dan dukungan fasilitas sekolah untuk memperkuat praktik pedagogi digital dalam pembelajaran PAI. Temuan ini memberikan kontribusi teoritis dan praktis terhadap pengembangan profesionalisme guru dan pembelajaran agama berbasis teknologi di era digital.



## 1. Introduction

The digital transformation of education has garnered global attention as the demand for adaptive and responsive learning approaches continues to grow in line with technological advancements. Islamic Religious Education (PAI), as an integral component in shaping students' character and spiritual values, is equally affected by the push for digital innovation in teaching and learning. In this context, there arises a need to design PAI instruction that is not only informative but also engaging and capable of fostering active student participation.<sup>1</sup> The paradigm shift from traditional to digital education encourages the exploration of interactive and contextual learning media, particularly at the primary education level.<sup>2</sup> Therefore, it is essential to explore digital learning strategies that align with the characteristics of both PAI content and early learners.

Various studies have shown that gamification and interactive technology-based learning have been widely adopted in religious education across different countries. The use of platforms such as Kahoot, Quizizz, and Wordwall has been found to enhance active participation and content retention in religious learning settings.<sup>3</sup> These innovations align with the demands of modern education, which calls for pedagogically meaningful yet enjoyable approaches. The integration of technology into religious education also supports the creation of more collaborative and reflective learning environments. Among these platforms, Wordwall has received particular attention due to its capability to present lesson materials in the form of quizzes and educational games.<sup>4</sup>

Wordwall enables educators to design diverse and engaging learning activities, including crossword puzzles, word matching, and spin-the-wheel games. In the context of Islamic Religious Education, Wordwall has been utilized to teach subjects such as prophetic stories, Islamic jurisprudence (fiqh), and moral education (akhlak), which were traditionally delivered through conventional lectures.<sup>5</sup> One of Wordwall's strengths lies in its flexibility, allowing adaptation to curriculum needs and student characteristics. Additionally, its visual and interactive features have been shown to support active and experiential learning principles. These aspects make Wordwall a promising tool for enhancing both the effectiveness and attractiveness of PAI instruction.

Previous studies have also indicated that Wordwall use aligns with constructivist learning approaches, which emphasize the active role of students in constructing their own knowledge. This approach is particularly suitable for primary school students, who tend to learn more effectively through concrete and visual experiences.<sup>6</sup> Within the framework of the Technology Acceptance Model (TAM), Wordwall is perceived as an

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<sup>1</sup> Sitaman Said, "Peran Teknologi Digital Sebagai Media Pembelajaran di Era Abad 21," *Jurnal PenKoMi : Kajian Pendidikan dan Ekonomi* 6, no. 2 (18 Juni 2023): 194–202, doi:10.33627/pk.62.1300.

<sup>2</sup> Muhammad Rusdi et al., "The Impact of Technology Use in Teaching and Understanding Religious Values on Students' Moral Development in Islamic Schools in Indonesia," *The Eastasouth Journal of Learning and Educations* 1, no. 3 (30 November 2023): 123–34, doi:10.58812/esle.v1i03.158.

<sup>3</sup> Nur 'Atiqah Mohd Zainudin dan Miftahul Huda, "Strategic Gamification for Religious Learning: an Empirical Literature Review," *IJMOP: International Journal of Modern Education* 6, no. 23 (2024): 854–64, doi:10.35631/IJMOP.623059.

<sup>4</sup> Irfan Hania et al., "Development Of CEFR-Based Qowa'id Learning Evaluation Tool With The Help of Wordwall Interactive Games to Identify Students' Understanding," *Alsinatuna: Journal of Arabic Linguistics and Education* 8, no. 1 (2022): 65–83, doi:10.28918/alsinatuna.v8i1.5601.

<sup>5</sup> Lovandri Dwanda Putra et al., "Pemanfaatan Wordwall pada Model Game Based Learning Terhadap Digitalisasi Pendidikan Sekolah Dasar," *JDPP: Jurnal Dimensi Pendidikan dan Pembelajaran* 12, no. 1 (2024): 81–95, doi:10.24269/dpp.v12i1.8749.

<sup>6</sup> Tri Iftitahur Rohmah et al., "Analisis Peran Teknologi Berbasis Game (Wordwall) dalam Membangun Minat Belajar Siswa," *Walada: Journal of Primary Education* 3, no. 3 SE-Articles (15 November 2024), doi:10.61798/wjpe.v3i3.147.

accessible and user-friendly tool for both educators and learners, thereby reinforcing its sustained use in classroom settings. Thus, the integration of Wordwall into PAI instruction is not only theoretically relevant but also practically applicable.<sup>7</sup> However, the success of this integration heavily depends on educators' readiness and implementation strategies.

Despite its many potentials, the implementation of Wordwall in PAI learning is not without challenges. Common obstacles include the lack of technical training for teachers, limited time for designing digital media, and varying levels of technological acceptance among educators.<sup>8</sup> Moreover, unequal access to technological infrastructure across primary schools serves as a significant barrier. Differences in motivation and digital literacy among teachers further complicate the uniform application of this tool. Therefore, it is important to gain a deep understanding of how PAI educators experience and respond to the use of Wordwall in their teaching practices.

Most existing studies tend to focus on the quantitative effectiveness of Wordwall in improving learning outcomes, often overlooking educators' subjective experiences. However, teachers' experiences with digital learning tools are a key factor in the success of educational innovation, especially in value-based learning contexts like PAI.<sup>9</sup> The limited attention to teachers' perceptions, strategies, and reflections on Wordwall use reveals a gap in academic literature. This is particularly relevant at the primary education level, where instructional approaches must be tailored to children's developmental characteristics. Such conditions present opportunities for research that explores the dynamics of teachers' experiences in a more in-depth and contextual manner.

This study aims to comprehensively explore educators' experiences in using the Wordwall application in Islamic Religious Education at the primary school level. The main focus includes their motivation for using the tool, classroom implementation processes, and perceived impacts on student engagement and understanding. Employing a qualitative approach, this research seeks to provide new insights into the role of technology in value-based education. Furthermore, the findings have the potential to inform the development of teacher training programs, educational policies, and curriculum designs that are more adaptive to the digital transformation in religious education. Consequently, this study is expected to strengthen both theoretical and practical foundations for the use of interactive media in PAI instruction in the digital era.

## 2. Method

This study employs a qualitative approach with a descriptive phenomenological design to gain an in-depth understanding of educators' experiences in using the Wordwall application for Islamic Religious Education (PAI) instruction. This approach was chosen because it enables the researcher to explore the subjective meanings behind educators' experiences as key actors in the process of digital learning innovation. Drawing on Edmund Husserl's concept of phenomenology, the study aims to grasp the essence of participants' experiences through a process of *bracketing*, or suspending the researcher's personal assumptions, to focus on the authentic perspectives of the informants.

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<sup>7</sup> Ali Tarhini et al., "Technology, Demographic Characteristics and E-Learning Acceptance: A Conceptual Model Based on Extended Technology Acceptance Model," *Higher Education Studies* (Canadian Center of Science and Education, 2016), doi:10.5539/hes.v6n3p72.

<sup>8</sup> Khalisatun Husna et al., "Transformasi Peran Guru Di Era Digital: Tantangan Dan Peluang," *Perspektif: Jurnal Pendidikan Dan Ilmu Bahasa* 1, no. 4 (2023): 154–67.

<sup>9</sup> Mashudi Mashudi dan Cecep Hilman, "Digital-Based Islamic Religious Education: A New Orientation in Enhancing Student Engagement and Spiritual Understanding," *Global International Journal of Innovative Research* 2, no. 10 (13 November 2024): 2488–2501, doi:10.59613/global.v2i10.342.

Data analysis was carried out in six stages: reading the transcripts thoroughly, applying bracketing, identifying meaning units, formulating essential themes, constructing textual and structural descriptions, and concluding the essence of participants' experiences. This approach is deemed suitable for portraying the personal and reflective dynamics involved in the integration of Wordwall-based educational technology.

Data were collected through in-depth interviews, direct classroom observations, and document analysis of instructional materials such as lesson plans and teaching resources. The study involved two primary informants: a PAI teacher at a public elementary school in Yogyakarta, referred to as ANI, and another from a private Madrasah Ibtidaiyah in Purworejo, referred to as UK. Informants were selected purposively based on specific criteria: having at least one semester of active experience using Wordwall, the ability to design digital learning activities, and a willingness to provide deep reflections. Interviews were semi-structured, lasting 45 to 60 minutes, recorded using digital devices, and complemented by field notes. Observations were conducted during the teaching process using an open rubric to record interactions, media usage, and student responses to Wordwall.

The research procedure was divided into three stages: preparation, implementation, and data analysis. During the preparation phase, data collection instruments were developed and informants identified. The implementation phase included interviews, classroom observations, and documentation. Data analysis followed Braun and Clarke's thematic method, involving open coding, theme identification, verification, and narrative reporting. Data validity was maintained through source triangulation, comparing interview results, classroom observations, and instructional documents. Through this approach, the study aims to generate a deep, contextual, and reflective understanding of educators' experiences in utilizing Wordwall as a digital learning medium for PAI in elementary schools.

### 3. Results

#### 3.1. Changing Perceptions of Technology

Educators' experiences with Wordwall not only facilitated more interactive PAI instruction but also transformed their mindset and attitudes toward the use of technology in the classroom. As Ms. UK reflected, *"Before I knew about Wordwall, I always felt awkward incorporating digital elements into PAI lessons it felt like I was 'forcing' technology. But after using it several times, I realized that technology can be my best teaching partner. I saw my students laughing, competing to answer, and their discussions became much more lively. Now I feel confident experimenting with other media, because I have personally experienced the positive impact."*

This shift in perception also influenced their professional identities. Educators no longer saw themselves merely as content deliverers, but as digital facilitators capable of designing meaningful learning experiences. Mr. HS added, *"Wordwall is not just a teaching aid—it was a gateway for me to rethink my teaching methods. I feel more creative when preparing PAI materials—no longer limited to just texts and whiteboards, but including games that spark students' curiosity. This makes me proud to be an adaptive educator who is relevant to the needs of today's generation."*

These observations and narratives reveal that Wordwall produces both cognitive and affective effects: educators experienced enhanced self-efficacy in managing digital classrooms, as well as a renewed motivation to continue learning and developing professionally. This transformation underscores how technological innovation can



impact not only student comprehension, but also revitalize the professional identity of PAI educators as agents of change in religious education.

### 3.2 Challenges in Adapting Wordwall to the PAI Curriculum and Instruction

Despite the advantages Wordwall offers in PAI instruction, educators still face various technical challenges in its classroom application. One major obstacle is the limited infrastructure, such as the absence of LCD projectors in several classrooms. As Ms. ANI explained, *"Not all classrooms are equipped with LCDs, so Wordwall can only be used for certain topics."* This reflects a common difficulty among educators in integrating Wordwall across different subjects, especially in schools with insufficient facilities. Such challenges highlight how the availability of digital infrastructure significantly determines the success of technology-based learning innovations.

In addition to technical barriers, educators also face digital competency challenges. Some educators find it difficult to fully understand and optimize the features of the Wordwall application, especially in the early stages of use. The exploration process requires time and patience to tailor quizzes or games to the complex content of PAI. As Ms. ANI noted, *"I need more time to adjust the quizzes to the PAI materials I'm teaching, especially because the content can be quite complex."* This indicates a need for structured and ongoing training support so that educators can develop digital pedagogical skills suited to open-ended, content-rich subjects like PAI.

To optimize Wordwall's potential in PAI instruction, systematic efforts are needed both at the policy level and in professional development. The provision of adequate infrastructure—such as digital devices and stable internet access—should be a priority. Furthermore, intensive training and collaborative forums among educators should be facilitated to encourage the exchange of experiences and effective strategies in using Wordwall. Experienced teachers can serve as mentors to peers who are new to the application, thus fostering a culture of sharing best practices in digital innovation within the school environment.

### 3.3 Pedagogical Transformation of Educators Following the Use of Technology

The use of Wordwall in Islamic Religious Education (PAI) instruction not only facilitates the comprehension of abstract concepts such as *aqidah* and *akhlaq*, but also drives a transformation in educators' pedagogical approaches. Its visual features and interactive game-based format enable educators to present open-ended material in a more contextualized and comprehensible manner for students. As noted by Mrs. UK, "By using Wordwall, students can grasp the core of the material without feeling burdened, as learning feels like playing." This shift indicates a movement away from conventional teaching methods toward a more participatory pedagogy grounded in student-centered experiential learning. In this context, educators no longer serve merely as transmitters of knowledge; instead, they act as facilitators of active, engaging, and meaningful learning processes.

Furthermore, the implementation of Wordwall has prompted educators to engage in pedagogical reflection and to design more creative and adaptive instructional strategies suited to learners' needs in the digital era. Educators have begun to recognize the value of technological innovation as a tool for strengthening interaction, enhancing student engagement, and fostering classroom collaboration. This transformation has also influenced educators' professional identities, positioning them as dynamic learning agents who are open to change. Integrating technology into PAI instruction has not only expanded educators' digital competencies but also shaped a new paradigm in which technology is viewed as an integral component of contemporary pedagogy. Therefore, Wordwall should not be seen merely as a teaching aid, but rather as a catalyst for change.

in how educators teach and conceptualize the learning process. To systematically illustrate the findings, the following synthesis table presents the key research outcomes:

**Table 1.** Synthesis of Research Findings

Main Theme	Key Findings	Learning Implications
Educators' Changing Perceptions of Technology	Educators experienced a shift from discomfort to confidence in using Wordwall	Wordwall can enhance educators' confidence in integrating technology into their teaching strategies
Strengthening Professional Identity	Educators viewed themselves as creative and adaptive facilitators rather than mere content deliverers	Digital innovation shapes educators' identities as relevant learning agents in the digital era
Technical and Digital Barriers	Limited infrastructure and digital skills remain challenges	Adequate facilities and training are essential to sustain classroom technology integration
Pedagogical Transformation	Wordwall encourages educators to design more participatory and enjoyable learning	Contextual game-based approaches can boost student engagement in PAI learning

The credibility of data in this study was maintained by applying validity principles appropriate to the phenomenological approach. The first step was *member checking*, wherein interpretations were verified with participants. The interviewed educators confirmed that the researcher's narratives accurately and authentically captured their experiences. In addition, *data triangulation* was conducted by collecting information from multiple sources, including in-depth interviews, direct classroom observations of PAI lessons using Wordwall, and instructional documents such as lesson plans and screenshots of digital activities. The consistency across these sources strengthened the credibility of the findings. The researcher also engaged in personal reflection to minimize interpretative bias and involved two non-participant educators to provide peer validation of the findings. These measures ensured that the interpretations were not merely subjective, but scientifically accountable and grounded in field realities.

However, several limitations must be considered in interpreting the results of this study. First, the number of participants was relatively small and drawn from only one urban elementary school, limiting the generalizability of the findings. Second, access to technological infrastructure was constrained; for instance, unstable internet connections and the lack of LCD projectors in some classrooms hindered the comprehensive use of Wordwall across all topics and classroom settings. Third, the study did not deeply explore the influence of school policies or institutional support on educators' readiness to adopt digital innovations. Therefore, further research is needed to incorporate these external variables in a more comprehensive manner.

The findings suggest that Wordwall can serve as an effective medium for fostering student engagement and developing educators' digital pedagogical competence, particularly in PAI instruction at the elementary level. However, these results cannot be directly applied to other educational levels without accounting for differences in student characteristics and school contexts. At the junior and senior high school levels, for instance, technology integration requires more complex strategies and feature adaptations that align with students' higher cognitive development. Similarly, in rural schools with limited infrastructure, the success of digital innovation largely depends on

the availability of support facilities and adequate teacher training. Thus, this study's findings should be regarded as an initial model that can be further developed and adapted across broader and more diverse educational settings.

#### **4. Discussion**

This study explored the experiences of Islamic Religious Education (PAI) teachers in using Wordwall, a web-based learning platform, in elementary classrooms. The findings of this study indicate that the use of Wordwall in Islamic Religious Education (PAI) contributes to creating a more interactive, contextual, and enjoyable learning experience. Educators were able to present abstract materials such as aqidah (creed) and akhlak (ethics) in the form of engaging games. This experience not only enhanced students' learning interest but also fostered educators' self-efficacy in using educational technology.

From a cognitive perspective, student engagement increased as Wordwall-based activities required rapid and collaborative information processing.<sup>10</sup> This aligns with constructivist theory, which posits that students build knowledge through active and meaningful learning experiences.<sup>11</sup> Furthermore, within the framework of Student Engagement Theory, as explained by Fredricks et al., students' cognitive and affective engagement improves when learning is designed with participatory approaches. Wordwall supports these dimensions through gamification, visual presentation, and an instant feedback system.<sup>12</sup>

A concrete example can be seen in the behavioral changes observed by educators, where students shifted from passive to more active participants. As stated by Ms. Ani, students became more confident in answering questions in class.<sup>13</sup> This observation is also relevant to the Technological Pedagogical Content Knowledge (TPACK) model, which emphasizes that the integration of technology aligned with pedagogical strategies can optimize learning effectiveness.<sup>14,15</sup>

These findings reinforce the results of studies by Hikam & Setiawan, which found that Wordwall enhances classroom interactivity,<sup>16</sup> especially when teaching abstract

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<sup>10</sup> Revathy Tiagarajah dan Mohd Nihra Haruzuan Bin Mohamad Said, "The Effect of Game-Based Application in Improving Students' Engagement towards Learning Malay Language in Primary School," in *2022 8th International Conference on Education and Technology (ICET)*, 2022, 38–42, doi:10.1109/ICET56879.2022.9990607.

<sup>11</sup> Ali Alqarni, "Network Dynamics and the Impact of Gamification on Computational Thinking and Visual Programming in Primary Education," *Journal of Educational Computing Research*, 30 April 2025, doi:10.1177/07356331251337628.

<sup>12</sup> Mei Rianto Chandra, Jureynolds, dan Qian Kun, "Utilizing Wordwall Mobile Apps to Improve Mandarin Language Skills," in *2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIT)*, 2024, 1–4, doi:10.1109/ICCIT62134.2024.10701231.

<sup>13</sup> Zaky Farid Luthfi et al., "Technology, Pedagogy and Content Knowledge Model for Increasing Civic Education Teacher's Competencies in the Classroom," *Journal of Moral and Civic Education* 7, no. 2 (2024): 133–44, doi:10.24036/8851412722023762.

<sup>14</sup> Nurah Saleh Alfares, "Investigating the Efficacy of Wordwall Platform in Enhancing Vocabulary Learning in Saudi EFL Classroom," *International Journal of Game-Based Learning* 15, no. 1 (2025): 1–12, doi:10.4018/IJGBL.367870.

<sup>15</sup> Handan Kocabatmaz dan Gülcin Kezban Saracoğlu, "The Effect of Educational Digital Games on Academic Success and Attitude in 3rd Grade Mathematics Class," *Participatory Educational Research* 11, no. 2 (2024): 230–44, doi:10.17275/per.24.28.11.2.

<sup>16</sup> Cholid Syihabul Hikam dan Agus Setiawan, "Wordwall Website : Inovasi Media Pembelajaran Pendidikan Agama Islam ( PAI ) dalam Merespon Era Digital," *Journal on 06*, no. 03 (2024): 17525–31, doi:10.31004/joe.v6i3.5679.

content.<sup>17</sup> Similarly, Rohmah et al. noted that interactive, technology-based media can stimulate students' intrinsic motivation.<sup>18</sup> However, unlike those studies, this research highlights that challenges are not limited to students but also involve teachers' readiness and the availability of school infrastructure.

Several obstacles, such as limited access to LCD projectors and unstable internet connections, hindered the optimal use of Wordwall, as pointed out by Ms. Ani. This supports existing research on the digital divide as a barrier to the implementation of digital innovation.<sup>19</sup> Nevertheless, educators who had positive experiences using Wordwall demonstrated professional reflection and a willingness to continue innovating.

The practical implications of this study include the need for continuous digital pedagogical training for educators, especially in developing technology-integrated PAI materials. Teachers suggested utilizing Wordwall templates and collaborating in learning communities to share best practices. From a policy perspective, schools need to provide adequate infrastructure and support the integration of applications like Wordwall into the digital curriculum. This aligns with initiatives that stress the importance of curriculum transformation to better respond to advancements in educational technology.<sup>20</sup> Nationally, the digitalization program launched by the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) has encouraged the integration of ICT into education. However, compared to countries like South Korea or Singapore, which have systematically implemented technology-based curricula, Indonesia still faces challenges in achieving equitable access to digital infrastructure, particularly in areas with limited connectivity.<sup>21</sup>

This study has several limitations that should be acknowledged. First, the small number of participants—only two educators from one elementary school in Yogyakarta—limits the generalizability of the findings. Second, infrastructural constraints such as the absence of LCD projectors and other digital devices represent external factors that influenced the results. Third, interpretive bias may occur due to the qualitative and highly contextual nature of the data collected.

The phenomenological design of this study aimed to explore the subjective experiences of educators. However, future studies could complement this approach with quantitative methods or experimental studies to more objectively measure the impact of Wordwall. The researchers also critically reflected on the limitations of selecting a homogeneous group of participants (PAI educators), suggesting that future research could expand to junior and senior high school levels or include teachers from other subjects.

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<sup>17</sup> Benjamin Luke Moorhouse dan Lucas Kohnke, "Creating the Conditions for Vocabulary Learning with Wordwall," *RELC Journal* 55, no. 1 (13 April 2022): 234–39, doi:10.1177/0033688221092796.

<sup>18</sup> Tri Iftitahur Rohmah et al., "Analisis Peran Teknologi Berbasis Game (Wordwall) dalam Membangun Minat Belajar Siswa."

<sup>19</sup> Yulie Wahyuningsih, Suyitno Suyitno, dan Erna Nur Faizah, "Diklat Nasional Online untuk Menyusun Modul Ajar Berbasis AI, Media Pembelajaran Interaktif dan Assesmen dalam Kurikulum Nasional," *SOCIETY: Jurnal Pengabdian Masyarakat* 3, no. 5 (2024): 306–17, doi:10.55824/jpm.v3i5.442.

<sup>20</sup> M Mahbubi dan Nurul Aini, "Konstruktivisme Penggunaan Media Sosial dalam Menunjang Pemahaman Peserta Didik Tentang Ajaran Agama Islam," *Al-Ulum Jurnal Pemikiran dan Penelitian ke Islam* 11, no. 4 (25 September 2024): 426–39, <https://journal.uim.ac.id/index.php/alulum/article/view/2977>.

<sup>21</sup> Rosdiana Rosdiana et al., "Reformasi Pendidikan Global: Membangun Sistem Pendidikan yang Responsif terhadap Perubahan Sosial dan Teknologi: Global Education Reform: Building Education Systems Responsive to Social and Technological Change," *Edu Cendikia: Jurnal Ilmiah Kependidikan* 4, no. 3 (28 Desember 2024): 1825–38, doi:10.47709/educendikia.v4i03.5605.

Further research is recommended to involve participants from various educational levels and geographical areas (urban and rural), as well as to conduct comparative studies across schools. Quantitative research using experimental designs could also be conducted to systematically measure the impact of Wordwall on student learning outcomes. Collaboration among educators, application developers, and policymakers should be strengthened to design digital learning platforms that align with the national curriculum context.

## 5. Conclusion

This study explored the experiences of Islamic Religious Education (PAI) teachers in using Wordwall, a web-based learning platform, in elementary classrooms. The findings show a shift in teachers' attitudes—from initial hesitation to growing confidence—in integrating digital tools into religious instruction. Wordwall enhanced student engagement and helped simplify abstract PAI concepts. Teachers also reported increased motivation and a shift toward more student-centered, creative teaching approaches. However, challenges such as limited infrastructure, unstable internet, and difficulty aligning content with platform features were noted. Despite these obstacles, Wordwall contributed to the professional development of teachers and supported pedagogical innovation. Institutional support—through training, infrastructure, and peer collaboration—is essential for sustainable technology integration. This study was limited to a single urban school. Future research should include broader contexts, especially rural schools, and examine institutional factors influencing digital adoption in religious education.

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