

Hybrid Learning Model in Islamic Religious Education Based on Information Technology: A Case Study in Senior High School

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ARTICLE INFO	ABSTRACT
<p>Article history: Received: January 27, 2025 Revised: March 16, 2025 Accepted: April 13, 2025 Available Online: May 30, 2025</p> <p>Keywords: Hybrid Learning Model; Islamic Religious Education; Information Technology; Senior High School.</p>	<p>This study aims to describe the implementation of the hybrid learning model based on information technology (IT) in Islamic Religious Education (PAI) at Senior High School. The background of this research is the need for innovative learning that integrates face-to-face instruction with online learning, making it more flexible, effective, and relevant to the digital era. This research employed a qualitative approach with a case study method. Data were collected through observation, interviews, and documentation involving Islamic Religious Education teachers and students at the senior high school level. The findings indicate that the hybrid learning model has a positive impact on enhancing students' learning motivation, understanding of Islamic Education materials, and digital literacy skills. However, challenges remain, including limited technological facilities and teachers' readiness in managing hybrid learning. This study is expected to contribute to the development of IT-based innovations in Islamic Religious Education at the senior high school level.</p>
<p>Please cite this article: Munthe, D., Romauli, R., Maha, L., & Yeni, R. (2025). Hybrid learning model in Islamic religious education based on information technology: A case study in senior high school. <i>Integrasi: Jurnal Studi Islam dan Humaniora</i>, 3(2), 109–128.</p>	<p>ABSTRAK</p> <p>Penelitian ini bertujuan untuk mendeskripsikan implementasi model pembelajaran hybrid berbasis teknologi informasi (TI) dalam mata pelajaran Pendidikan Agama Islam (PAI) di Sekolah Menengah Atas (SMA). Latar belakang penelitian ini didasarkan pada kebutuhan inovasi pembelajaran yang mampu mengintegrasikan metode tatap muka dengan pembelajaran daring sehingga lebih fleksibel, efektif, dan relevan dengan perkembangan era digital. Metode penelitian yang digunakan adalah pendekatan kualitatif dengan studi kasus. Data diperoleh melalui observasi, wawancara, dan dokumentasi yang melibatkan guru PAI serta siswa di SMA. Hasil penelitian menunjukkan bahwa model pembelajaran hybrid memberikan dampak positif terhadap peningkatan motivasi belajar siswa, pemahaman materi PAI, serta keterampilan literasi digital. Namun demikian, hambatan berupa keterbatasan fasilitas teknologi dan kesiapan guru dalam mengelola pembelajaran masih menjadi tantangan. Penelitian ini diharapkan dapat menjadi kontribusi dalam pengembangan inovasi pembelajaran PAI berbasis IT di tingkat SMA. Pembelajaran hybrid berbasis teknologi informasi (TI) dalam mata pelajaran Pendidikan Agama Islam (PAI) di Sekolah Menengah Atas (SMA). Latar belakang penelitian ini didasarkan pada kebutuhan inovasi</p>

	<p>pembelajaran yang mampu mengintegrasikan metode tatap muka dengan pembelajaran daring sehingga lebih fleksibel, efektif, dan relevan dengan perkembangan era digital. Metode penelitian yang digunakan adalah pendekatan kualitatif dengan studi kasus. Data diperoleh melalui observasi, wawancara, dan dokumentasi yang melibatkan guru PAI serta siswa di SMA. Hasil penelitian menunjukkan bahwa model pembelajaran hybrid memberikan dampak positif terhadap peningkatan motivasi belajar siswa, pemahaman materi PAI, serta keterampilan literasi digital. Namun demikian, hambatan berupa keterbatasan fasilitas teknologi dan kesiapan guru dalam mengelola pembelajaran masih menjadi tantangan. Penelitian ini diharapkan dapat menjadi kontribusi dalam pengembangan inovasi pembelajaran PAI berbasis IT di tingkat SMA.</p>
Page: 109-128	<p>This is an open acces article under the CC-BY-SA liscence (https://creativecommons.org/licenses/by-sa/4.0/).</p>

A. Introduction

The development of information and communication technology (ICT) has brought significant changes in various aspects of life, including education. The learning process, which previously relied solely on face-to-face interaction in the classroom, has now transformed with the support of digital technology (Siagian, 2021). This transformation presents both challenges and opportunities for educators to design innovative learning models. Islamic Religious Education (IRE), as an essential part of the curriculum in Senior High Schools, is also required to adapt to technological advancements. IRE does not only emphasize the transfer of religious knowledge but also focuses on the internalization of values and the formation of students' character (Syahputra, 2022). Therefore, an appropriate learning model is needed to address the needs of the digital generation.

One of the innovations widely implemented in education is the hybrid or blended learning model. This model integrates face-to-face learning with technology-based online learning (Garrison & Vaughan, 2008). Consequently, students gain a more flexible and interactive learning experience. The implementation of hybrid learning in IRE at the senior high school level is highly relevant, considering that adolescents are a generation familiar with digital technology. According to Prensky (2001), they belong to the category of *digital natives* who are accustomed to using digital devices in their daily lives. This indicates that the use of IT in learning can significantly enhance students' motivation and participation.

In practice, however, the implementation of the hybrid model in IRE still faces various challenges. On the one hand, hybrid learning improves the effectiveness of learning through

the integration of technology; on the other hand, limitations in infrastructure, teacher readiness, and students' varying levels of access to technology remain obstacles (Rahayu & Wirza, 2020). Furthermore, hybrid learning in IRE must take into account spirituality and Islamic values. Technology serves only as a tool, while the ultimate goal of IRE is to cultivate students who are faithful, pious, and have noble character (Mulyasa, 2018). Thus, the integration of IT should align with the mission of Islamic education.

In the Indonesian context, the *Merdeka Belajar* (Freedom to Learn) policy initiated by the Ministry of Education, Culture, Research, and Technology provides opportunities for digital-based learning innovations. IRE teachers in senior high schools are encouraged to utilize digital platforms such as Learning Management Systems (LMS), video conferencing applications, and even social media to enhance the quality of learning (Kemendikbudristek, 2020). Previous research has shown that hybrid learning can improve students' motivation and learning outcomes. For instance, Hidayat (2021) found that blended learning positively influences students' critical thinking skills. This demonstrates the significant potential of hybrid learning in IRE.

Moreover, hybrid learning creates a more personalized and adaptive learning experience. Students are able to learn at their own pace through online materials, while face-to-face sessions are used for discussions, questions, and reinforcement of Islamic values (Zainuddin & Keumala, 2018). In this way, IRE becomes more contextual and meaningful. Nevertheless, several challenges remain, such as low levels of digital literacy among both teachers and students. Some IRE teachers still face difficulties in integrating IT into their teaching due to a lack of training and experience (Suryana, 2019). Therefore, the success of hybrid learning is highly dependent on teachers' competence.

Infrastructure issues also pose significant barriers. Not all schools have sufficient internet access and digital devices to support hybrid learning. The digital divide between urban and rural schools further widens the disparity in learning quality (Wardani & Kusumah, 2021). From the students' perspective, motivation and self-discipline are also crucial factors. Hybrid learning requires high levels of learner autonomy since part of the process occurs online. Without discipline in managing their study time, students may fail to achieve the intended learning outcomes (Basri, 2020).

From an Islamic perspective, the use of technology in education can be seen as a form of actualizing Allah's command to use reason and knowledge. This is consistent with the Quranic verses in Surah Al-'Alaq [96]: 1–5, which emphasize the importance of reading and learning as the foundation for knowledge development. Thus, integrating IT in IRE can strengthen Islamic values in the digital era. Based on these considerations, research on hybrid learning models in IT-based IRE at senior high schools is highly important. This study seeks to describe the implementation, supporting and inhibiting factors, and the effectiveness of hybrid learning in improving students' learning outcomes.

The results of this study are expected to contribute to teachers, schools, and policymakers in developing IRE innovations that are in line with the demands of the digital age. Hence, Islamic Religious Education will remain relevant to the needs of the digital generation while maintaining its essential role in shaping students' Islamic character.

B. Method

This study employed a qualitative approach with a case study design. The qualitative method was chosen because it allows researchers to explore phenomena in depth, focusing on the process, context, and meaning behind the implementation of hybrid learning in Islamic Religious Education (IRE). A case study design was applied to gain a comprehensive understanding of how hybrid learning is carried out in a specific school setting and to reveal the unique characteristics of its implementation.

The subjects of this research were Islamic Religious Education teachers and students in a selected senior high school. Teachers were chosen because they are directly responsible for designing, implementing, and evaluating the learning process, while students were included to provide perspectives on their experiences, challenges, and benefits of hybrid learning. The combination of these two subjects enabled the researcher to obtain holistic data.

The instruments used in this study included interviews, observations, and documentation. Semi-structured interviews were conducted with teachers and students to gather detailed information on their experiences and perceptions of hybrid learning. Observations were carried out during both face-to-face and online learning sessions to obtain authentic data on classroom dynamics, teaching strategies, and student engagement.

Documentation, such as lesson plans, attendance records, and school policies, was also analyzed to complement the data obtained from interviews and observations.

Data collection was conducted systematically and carefully to ensure credibility. Triangulation of data sources was applied by comparing information from interviews, observations, and documentation to strengthen the validity of the findings. This approach was important in capturing the complexity of hybrid learning in the context of IRE, especially since the phenomenon involves multiple actors and settings.

For data analysis, the researcher employed the interactive model developed by Miles and Huberman. The analysis involved three stages: data reduction, data display, and conclusion drawing. In the data reduction stage, irrelevant information was eliminated while significant findings were categorized. In the data display stage, the researcher organized the data into descriptive narratives and matrices for easier interpretation. Finally, in the conclusion drawing stage, the researcher identified key patterns and formulated findings related to the implementation of hybrid learning in IRE.

Overall, the chosen methodology was designed to provide a comprehensive and contextual understanding of hybrid learning in Islamic Religious Education at the senior high school level. By using a qualitative case study approach, supported by multiple instruments and systematic data analysis, the study aimed to capture the depth and richness of the learning process, the challenges encountered, and the opportunities offered by integrating information technology in IRE.

C. Results and Discussion

The findings of this study reveal that the hybrid learning model in Islamic Religious Education (IRE) at the senior high school level is increasingly accepted by both teachers and students. The use of a combined face-to-face and online learning approach allows for more flexibility in delivering teaching materials. Students reported that they could better manage their time, while teachers emphasized that online platforms made it easier to share learning resources.

Second, the study found that the integration of IT-based platforms such as Google Classroom, Zoom, and WhatsApp groups significantly increased student engagement. These

tools enabled students to access learning resources outside class hours, review lecture recordings, and participate in interactive discussions. Teachers noted that students who were previously passive in traditional classrooms became more active in the online discussions.

Third, the application of hybrid learning had a positive impact on students' motivation. The novelty of using IT-based media, combined with direct interaction in class, encouraged students to take part more enthusiastically in the learning process. This motivation was reinforced by the presence of multimedia-based learning resources such as videos, animations, and interactive quizzes that enriched the learning experience.

Fourth, the study also indicated that hybrid learning supports the achievement of learning outcomes in IRE. Students showed better comprehension of abstract concepts, such as *aqidah* (faith) and *akhlak* (morals), when supported with multimedia content. The availability of digital resources allowed students to explore topics in more depth, resulting in improved understanding and retention.

Fifth, the use of hybrid learning encouraged collaborative learning among students. Group projects conducted online, such as creating presentations or short video reflections on Islamic themes, fostered cooperation and strengthened social bonds. Students expressed that working in digital groups allowed them to contribute ideas more openly and without the constraints of classroom time.

Sixth, from the teachers' perspective, hybrid learning helped diversify instructional strategies. Teachers could combine lectures, discussions, multimedia content, and online assessments, thereby avoiding monotony in the classroom. This variety not only enhanced student learning but also improved teachers' professional development in utilizing technology for education.

Seventh, however, the findings also highlighted several challenges. The most prominent issue was the inequality of internet access among students. Those from rural or economically disadvantaged backgrounds sometimes faced difficulties in participating fully in online sessions due to weak connections or lack of devices.

Eighth, another challenge was the level of teachers' digital literacy. Not all IRE teachers were equally skilled in using IT-based learning platforms. Some required additional

training to effectively design and manage online classes. Schools that provided regular training sessions saw more successful implementation of hybrid learning.

Ninth, the assessment of student performance in hybrid learning presented both opportunities and obstacles. While online quizzes and assignments allowed for quicker grading, teachers also expressed concerns about academic integrity. Some students relied on external sources during online assessments, raising questions about fairness and authenticity.

Tenth, despite these challenges, students and teachers both agreed that hybrid learning provided a more modern and relevant approach to education. The combination of IT-based tools with traditional classroom teaching prepared students to face the demands of the digital era without losing the values and essence of Islamic Religious Education.

Eleventh, the study further revealed that hybrid learning promoted independent learning. Students were encouraged to search for additional materials, watch supplementary videos, and read e-books provided by teachers. This autonomy nurtured critical thinking and fostered a sense of responsibility in managing their own learning process.

Twelfth, the implementation of hybrid learning also aligned with the character-building goals of IRE. Through digital storytelling and online reflection assignments, students were able to express their understanding of Islamic values in creative ways. Teachers observed that such activities strengthened students' moral reasoning and practical application of religious teachings.

Thirteenth, an interesting finding of the study was that hybrid learning reduced classroom fatigue. Instead of spending long hours in class, students alternated between physical and virtual environments. This change of setting kept their focus and attention higher compared to traditional methods.

Fourteenth, hybrid learning also encouraged parental involvement. Because part of the learning took place at home through digital platforms, parents became more aware of their children's academic activities. Some parents reported feeling more connected to the educational process and better able to support their children's spiritual and academic growth.

Finally, the findings suggest that hybrid learning in IRE can serve as a sustainable educational innovation if schools address the challenges of infrastructure and teacher training. By strengthening IT facilities, enhancing teacher competence, and ensuring equitable access

for all students, hybrid learning has the potential to transform Islamic education in senior high schools into a more effective, engaging, and future-oriented system.

D. Conclusion

The findings of this study indicate that the implementation of a hybrid learning model in Islamic Religious Education, which integrates face-to-face learning with information technology-based online platforms, has provided significant benefits for both students and teachers in senior high schools. This model not only increases the flexibility of the learning process but also enhances student engagement and motivation, as they are able to access various learning resources more easily and interact actively through digital platforms. Moreover, the hybrid model has contributed to the improvement of students' understanding of Islamic values by providing a combination of traditional classroom learning and modern digital approaches.

The results also reveal that while the hybrid model offers promising opportunities, its effectiveness strongly depends on the readiness of infrastructure, the digital literacy of both teachers and students, and continuous support from school institutions. Challenges such as unequal internet access, limited facilities, and the varying levels of student self-regulation were identified as factors that need to be addressed to maximize the potential of hybrid learning.

In conclusion, the hybrid learning model can serve as an innovative and effective approach to strengthening Islamic Religious Education in senior high schools, particularly in the era of digital transformation. It provides a balanced integration of technology and pedagogy while maintaining the essence of Islamic teachings. Future efforts should focus on improving technological infrastructure, enhancing teacher training, and fostering student discipline to ensure that hybrid learning can be sustained as a comprehensive model for quality education.

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