



Implementation of Blended Learning: An Alternative for Developing Technology-Based Islamic Religious Education Learning Models

Syarifah Musanna¹, Universitas Islam Negeri Ar-Raniry Banda Aceh, Indonesia

Warul Walidin², Universitas Islam Negeri Ar-Raniry Banda Aceh, Indonesia

Salami Mahmud³, Universitas Islam Negeri Ar-Raniry Banda Aceh, Indonesia

ABSTRACT

This study aims to analyze the implementation of blended learning as an alternative development of technology-based Islamic Religious Education (PAI) learning model. In the context of increasingly digitized education, blended learning combines face-to-face learning with online learning, allowing students to learn flexibly anywhere and anytime. From the analysis of various sources, it is concluded that blended learning is an effective method to improve the quality of technology-based Islamic Education learning. This study aims to analyze the implementation of blended learning as an alternative learning model development for technology-based Islamic Education (PAI). In the context of evolving education, blended learning is a relevant alternative learning model to increase the effectiveness and flexibility of learning. The research method used is library research with a qualitative approach, which involves analyzing various literature sources, including articles, journals, and related books. The results show that the application of blended learning in Islamic education learning has a positive impact on student learning outcomes. This model allows a combination of face-to-face learning and online learning, so that students can access materials more widely and interactively. The research also identified several factors supporting the success of blended learning.

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Corresponding Author:

Syarifah Musanna

Universitas Islam Negeri Ar-Raniry Banda Aceh, Indonesia

syarifahmusanna@gmail.com

Introduction

Along with the rapid advancement of information technology, conventional learning methods are beginning to face various challenges in responding to increasingly complex educational needs. In today's digital era, education is undergoing major changes, including in Islamic Religious Education (PAI) learning. One approach that is considered capable of increasing the effectiveness of learning is the blended learning model, which combines traditional teaching methods with digital technology. Through this approach, students have more flexible and interactive access to learning materials.

The obstacle that often arises in PAI learning is low student motivation due to the use of monotonous methods. The use of technology not only expands the reach of teaching materials, but also allows teachers to convey religious values in a more interesting and contextual way through interactive modules that are in accordance with student needs.

The COVID-19 pandemic has also changed the face of education, with homes becoming the center of learning activities as a result of government policies to prevent the spread of the virus (Culture & Indonesia, 2020). Learning that was originally carried out face-to-face (offline) must switch to an online system using platforms such as WhatsApp Group, Zoom, Telegram, Google Meet, Microsoft Teams, and other similar applications.

The changing times pose various challenges that must be answered by the world of education, including Islamic Religious Education. Quality education is believed to be able to produce superior and characterful human resources, which will ultimately form a dignified nation (Mulyasa, 2009). However, the implementation of online learning is not free from various complex problems. Teachers often do not fully master technology, while students have difficulty understanding the material due to limited direct interaction. In addition, not all students have adequate access to devices and internet networks, especially in remote areas.

This situation demands innovative solutions through an adaptive learning approach. One of them is the implementation of a blended learning model which can be an effective alternative during the pandemic. This model combines direct and online learning, thus providing wider access and more varied methods in developing student potential (Dainuri & Haris, 2022).

Etymologically, the term blended learning consists of two words, namely blended (combination / mixture) and learning (learning) (Dwiyogo, 2022). In addition to these two terms, there are other terms that are often used that have the same meaning, namely blending, mixing or combination of learning. In order not to be confusing, this problem was explained by Mainnen in Rusman who stated that "blended learning has several alternative names, namely mixed learning, blended blended e-learning, and melted learning (Finnish) (Dwiyogo, 2022). In addition, Moebs and Weibelzahl define blended learning as a mixture of online and face-to-face meetings in one integrated learning activity; 2) According to Thorne, blended learning is a combination of multimedia technology, CD ROM, video streaming, virtual classes, voice mail, e-mail, teleconferencing, and online text animation. All of this is combined with traditional forms of classroom training and individual training (Husamah, 2014).

Blended learning is a learning method that combines two or more approaches in the teaching and learning process. According to Mulyana et al. (2021), this model combines conventional learning with information technology, allowing students to interact without the limitations of space and time. Based on the explanation, many opinions explain the meaning of blended learning, but it can be understood that

blended learning is a learning model that combines two or more learning patterns, namely conventional or face-to-face learning with online learning that utilizes internet facilities or learning using computer facilities (offline). Thus, at first glance it contains the meaning of a learning pattern that contains elements of mixing, or a combination of one pattern with another. Elena Mosa in Rusman in Damanik said that what is mixed are two main elements, namely classroom learning (classroom lesson) with online learning (Damanik, 2019).

Blended learning-based learning began since the discovery of computers, although before that there had been a combination (blended). Learning initially occurred because of face-to-face and interaction between teachers and learners. After the printing press was discovered, students utilized print media. When audio-visual media was discovered, learning resources in learning combined teachers, print media, and audio-visuals. However, the terminology blended learning emerged after the development of information technology so that sources could be accessed by learners offline or online (Husamah, 2014).

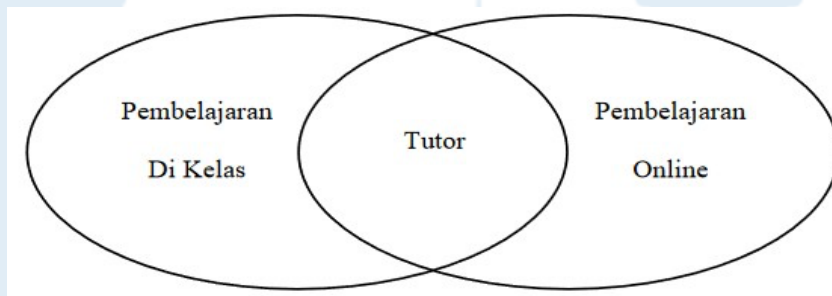


Figure 1: Blended Learning Formula

Blended learning integrates or combines various learning programs in different formats in achieving the learning objectives set. Blended learning is a combination of various strategies in learning (Element et al., 2015). So it can be said that blended learning is a learning method that combines two or more methods and strategies in learning to achieve the objectives of the learning process. Simply put, blended learning is learning that combines learning delivery strategies using face-to-face activities, computer-based learning (offline), and online computers (internet and mobile learning). The teaching materials delivered through this media have graphics, text, animation, simulation, audio and video.

Blended learning can also be seen as a response to technological developments. This is not only seen as a combination of online with face-to-face learning. But as an opportunity to integrate advances in technological innovation that can be provided online and face-to-face. Blended Learning is a learning approach that combines traditional learning (face-to-face) and distance learning that uses online learning resources with a variety of communication options that can be used by educators and students.

Islamic Religious Education (PAI) learning planning based on blended learning is an important stage in perfecting the education process to comply with applicable provisions. In this planning process, educators are required to study various normative

and alternative documents, and understand contextual realities which are then formulated into applicable documents that are ready to be implemented in learning activities. This planning includes the provision of various learning media such as teaching materials, learning resources, digital applications, WhatsApp groups, internet access, LCD projectors, computers, and various learning activities that can support students' ease in understanding PAI material.

The initial step in designing a blended learning system is to formulate learning outcomes as the basis for all learning activities. After that, mapping and organizing the material is carried out, namely by grouping the material into topics, subtopics, and main points of material according to the predetermined achievements. Furthermore, educators need to choose and determine learning activities that are synchronous (direct/online) or asynchronous (indirect/offline) by considering the characteristics of the material and the most appropriate strategies. The design of asynchronous learning activities is carried out by compiling a learning outline and arranging a detailed learning flow for each topic delivered offline. The same thing also applies in designing synchronous learning activities, which are designed according to the topics delivered online, by compiling a general design and compiling a detailed learning flow.

The implementation of learning is a very crucial aspect in the world of education, because without optimal implementation, the previously designed planning will not have a maximum impact. The key to the success of learning implementation lies in the professionalism of teachers, the availability of adequate educational facilities, and the active involvement of parents in supporting the learning process. If these three elements are realized, then the implementation of learning will run smoothly and help students understand the material better. In implementing the blended learning model, the initial step that needs to be taken is to prepare a Learning Implementation Plan (RPP) and prepare materials, tools, media, and learning resources for both face-to-face and online, according to the achievements that have been set. The learning process is then carried out in the form of a combination of online and offline, with the use of digital applications, tutorial activities, cooperative learning, and the implementation of evaluations to assess student learning achievements as a whole.

Methods

The type of research used in this study is library research, namely research conducted through the collection of library data, or studies carried out to solve a problem that is basically based on a critical and in-depth review of relevant reference sources (Arikunto, 2010).

The researcher used a qualitative approach in analyzing literature related to the problems raised in the study on the Implementation of Blended Learning as an Alternative for Developing Technology-Based Islamic Religious Education Learning Models as a strategic step to gain a deep and comprehensive understanding. Library research is a systematic process for collecting, analyzing, and interpreting information relevant to the research topic from various written sources available in libraries or

digital resources. This study aims to gain a correct and precise understanding to answer the problems that have been described by previous researchers.

Result

After conducting an in-depth study and analyzing various relevant sources regarding blended learning as an alternative in developing the Islamic Religious Education (PAI) learning model, several important conclusions can be formulated. First, in the process of planning blended learning-based PAI learning, a teacher must have strategies and steps that include the preparation, implementation, and evaluation stages. This means that educators are required to have good learning planning and design before the learning process takes place, such as compiling teaching modules, preparing lesson materials, and determining the media and applications to be used. In its implementation, blended learning requires extra supervision, especially in the use of the internet, so that students do not misuse this access for negative things that can interfere with the quality of learning.

Second, in the implementation of blended learning-based PAI learning in schools, students can learn by utilizing the facilities provided by the school, or accessing materials via Android devices at home, especially if assignments are done outside of class hours. At this stage, students will search for, select, and sort relevant materials. Accuracy is needed so that students do not take information from less valid sources, because mistakes in choosing references can affect the quality of the collected materials. Furthermore, students are expected to be able to compile the materials obtained for presentation. If the material is in the form of an article, then students are encouraged to process it into a presentation form such as power point, animation, or paper, so that the delivery becomes more interesting and easy to understand, which in the end can increase the effectiveness of learning.

Third, evaluation of students during the implementation of blended learning is considered very important to determine the extent of students' understanding of the material that has been studied. This evaluation helps teachers in assessing the success of learning and in designing appropriate follow-up actions. PAI learning based on blended learning must indeed create a balance between mastery of theory and direct implementation of practice. Therefore, a teacher is required to not only master the material, but also have the skills to manage the learning atmosphere so that it remains conducive and enjoyable for students.

Discussion

After conducting an in-depth study and analyzing various relevant sources regarding blended learning as an alternative in developing Islamic Religious Education (PAI) learning models, several important conclusions can be formulated. This study reveals

that blended learning as a learning method that combines face-to-face learning and online learning can provide great benefits in improving the quality of PAI learning, especially in the context of the development of educational technology. In this study, blended learning is considered as the answer to the challenges faced by educators and students in adapting to the development of digital technology in the learning process.

First, in the process of planning PAI learning based on blended learning, a teacher must have strategies and steps that include the preparation, implementation, and evaluation stages. This means that educators are required to have good learning planning and design before the learning process takes place, such as compiling teaching modules, preparing lesson materials, and determining the media and applications to be used. In its implementation, blended learning requires extra supervision, especially in the use of the internet, so that students do not misuse this access for negative things that can interfere with the quality of learning. Several studies have shown that the use of technology in learning, although it provides many benefits, also has challenges in supervision, such as the tendency of students to access irrelevant or detrimental information (Hamid, 2020). Therefore, the role of teachers in supervising and providing guidance during the learning process is very important.

Second, in the implementation of blended learning-based Islamic Religious Education learning in schools, students can learn by utilizing the facilities provided by the school, or access materials via Android devices at home, especially if assignments are done outside of class hours. At this stage, students will search for, select, and sort relevant materials. Accuracy is needed so that students do not take information from less valid sources, because mistakes in choosing references can affect the quality of the material collected. This requires teachers to provide clear guidance regarding learning resources that students can use. Several studies have shown that digital literacy is very important in online learning, so that students' ability to choose the right sources will determine the success of learning (Cahyani, 2021). Furthermore, students are expected to be able to organize the material obtained for presentation. If the material is in the form of an article, then students are encouraged to process it into a presentation such as PowerPoint, animation, or paper, so that the delivery becomes more interesting and easier to understand.

The use of technology in creating learning materials can increase student engagement and help them understand concepts better, in accordance with the theory of constructivism which emphasizes experience-based learning and active student involvement (Piaget, 1973). Third, evaluation of students during the implementation of blended learning is considered very important to determine the extent to which students understand the material that has been studied. This evaluation helps teachers in assessing the success of learning and in designing appropriate follow-up actions. PAI learning based on blended learning must indeed create a balance between mastery of

theory and direct implementation of practice. Therefore, a teacher is required not only to master the material, but also to have the skills to manage the learning atmosphere so that it remains conducive and enjoyable for students. In this study, technology-based evaluations such as online quizzes, online discussions, and interactive assignments can improve the quality of evaluation by providing faster and more accurate feedback (Daryanto, 2020). Therefore, it is important for educators to continue to develop digital skills and teaching methodologies that can support technology-based learning.

Blended learning as a technology-based learning model offers solutions that are relevant to the demands of the times, but also presents challenges that need to be addressed with a mature approach. Good implementation requires detailed planning, technical skills from teachers, and support from school facilities and parents to create an effective and meaningful learning environment. This study emphasizes the importance of a deep understanding of blended learning as a model that combines the strengths of traditional and digital education to create a more dynamic and interactive learning experience.

Conclusion

The implementation of blended learning in Islamic Religious Education (PAI) offers a strategic solution to address the evolving needs of modern education, particularly in the integration of technology. Through careful planning, including the preparation of learning materials, the selection of appropriate digital tools, and the integration of synchronous and asynchronous activities, blended learning can enhance the effectiveness and engagement of students. While challenges such as internet misuse and the need for digital literacy remain, with proper guidance and support, blended learning can significantly improve the learning experience. Furthermore, the use of technology in evaluating student progress allows for more immediate feedback, fostering a more dynamic and adaptive educational environment. Therefore, blended learning represents a promising approach for the development of Islamic Religious Education that aligns with the demands of contemporary education systems and prepares students for a more connected, digital world.

References

- Arikunto, S. (2002). *Prosedur Penelitian*. Bandung: Rineka Cipta.
- Dasopang, M. D., Lubis, A. H., & Dasopang, H. R. (2022). How do Millennial Parents Internalize Islamic Values in Their Early Childhood in the Digital Era? *AL-ISHLAH: Jurnal Pendidikan*, 14(1), 697–708.

- Dasopang, M. D., Nasution, I. F. A., & Lubis, A. H. (2023). The Role of Religious and Cultural Education as A Resolution of Radicalism Conflict in Sibolga Community. *HTS Theological Studies*, 79(1), 1–7.
- Erawadi, E., Hamka, H., & Juliana, F. (2017). The Analysis of Student's Stressed Syllables Mastery at Sixth Semester of TBI in IAIN Padangsidimpuan. *English Education: English Journal for Teaching and Learning*, 5(1), 44–57.
- Fatimah, A., & Maryani, K. (2018). Visual Literasi Media Pembelajaran Buku Cerita Anak. *Jurnal Inovasi Teknologi Pendidikan*, 5(1), 61–69. <https://doi.org/10.21831/jitp.v5i1.16212>
- Gogahu, D. G. S., & Prasetyo, T. (2020). Pengembangan Media Pembelajaran Berbasis E-Bookstory untuk Meningkatkan Literasi Membaca Siswa Sekolah Dasar. *Jurnal Basicedu*, 4(4), 1004–1015.
- Hamka, H. (2023). The Role of Principals on Teacher Performance Improvement in a Suburban School. *QALAMUNA: Jurnal Pendidikan, Sosial, Dan Agama*, 15(1), 371–380.
- Hamka, H., Suen, M.-W., Anganthi, N. R. N., Haq, A. H. B., & Prasetyo, B. (2023). The Effectiveness of Gratitude Intervention in Reducing Negative Emotions in Sexual Abuse Victims. *Psikohumaniora: Jurnal Penelitian Psikologi*, 8(2), 227–240.
- Harahap, S. M., & Hamka, H. (2023). Investigating the Roles of Philosophy, Culture, Language and Islam in Angkola's Local Wisdom of 'Dalihan Na Tolu.' *HTS Teologiese Studies/Theological Studies*, 79(1), 8164.
- Hendrawati, S., Rosidin, U., & Astiani, S. (2020). Perilaku hidup bersih dan sehat (PHBS) siswa/siswi di sekolah menengah pertama negeri (SMPN). *Jurnal Perawat Indonesia*, 4(1), 295–307. <https://doi.org/https://doi.org/10.32584/jpi.v4i1.454>
- Lubis, A. H. (2019). Upaya Peningkatan Hasil Belajar Siswa Sekolah Dasar melalui Model Cooperative Learning Tipe Numered Heads Together. *FORUM PAEDAGOGIK*, 11(2), 127–143.
- Lubis, A. H. (2023). The Interactive Multimedia Based on Theo-Centric Approach as Learning Media during the Covid-19 Pandemic. *JPI (Jurnal Pendidikan Indonesia)*, 12(2), 210–222.
- Lubis, A. H., & Dasopang, M. D. (2020). Pengembangan Buku Cerita Bergambar Berbasis Augmented Reality untuk Mengakomodasi Generasi Z. *Jurnal Pendidikan: Teori, Penelitian, Dan Pengembangan*, 5(6), 780–791.
- Lubis, A. H., Dasopang, M. D., Ramadhini, F., & Dalimunthe, E. M. (2022). Augmented Reality Pictorial Storybook: How does It Influence on Elementary School Mathematics Anxiety? *Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran*, 12(1), 41–53.

- Lubis, A. H., & Wangid, M. N. (2019). Augmented Reality-assisted Pictorial Storybook: Media to Enhance Discipline Character of Primary School Students. *Mimbar Sekolah Dasar*, 6(1), 11–20. <https://doi.org/10.17509/mimbar-sd.v6i1.16415>
- Lubis, A. H., Yusup, F., Dasopang, M. D., & Januariyansah, S. (2021). Effectivity of Interactive Multimedia with Theocentric Approach to the Analytical Thinking Skills of Elementary School Students in Science Learning. *Premiere Educandum: Jurnal Pendidikan Dasar Dan Pembelajaran*, 11(2), 215–226.
- Manshur, U., & Ramdlani, M. (2019). Media audio visual dalam pembelajaran PAI. *Al-Murabbi: Jurnal Pendidikan Agama Islam*, 5(1), 1–8.
- Mardhiyah, R. H., Aldriani, S. N. F., Chitta, F., & Zulfikar, M. R. (2021). Pentingnya Keterampilan Belajar di Abad 21 sebagai Tuntutan dalam Pengembangan Sumber Daya Manusia. *Lectura: Jurnal Pendidikan*, 12(1), 29–40.
- Ningsih, Y. S., Mulia, M., & Lubis, A. H. (2023). Development of Picture Storybooks with TheoAnthropoEco Centric Approach for Elementary School Students. *AL-ISHLAH: Jurnal Pendidikan*, 15(2), 1888–1903.
- Nurhidayah, I., Asifah, L., & Rosidin, U. (2021). Pengetahuan , Sikap dan Perilaku Hidup Bersih dan Sehat pada Siswa Sekolah Dasar. 13(1), 61–71. <https://doi.org/10.32528/ijhs.v13i1.4864>
- Peptiyanti, I., Ahmad, A., Dzaky, M., Fauziah, S. N., Rendi, & Puspitasari, P. (2023). Peran kurikulum merdeka dalam meningkatkan harmonisasi antara masyarakat dan sekolah. *Jurnal Pacu Pendidikan Dasar*, 3(1), 269–277. <https://doi.org/https://doi.org/10.22021/pacu.v3i1.411>
- Rahmah, S., & Lubis, A. H. (2024). Problem Posing as a Learning Model to Improve Primary School Students' Mathematics Learning Outcomes in Gayo Lues. *Journal of Indonesian Primary School*, 1(4), 93–104.
- Rahman, A., Munandar, S. A., Fitriani, A., Karlina, Y., & Yumriani. (2022). Pengertian Pendidikan, Ilmu Pendidikan dan Unsur-Unsur Pendidikan. *Al Urwatul Wutsqa: Kajian Pendidikan Islam*, 2(1), 1–8.
- Ranisa, R., Erawadi, E., & Hamka, H. (2018). Students' Mastery in Identifying Adverbs at Grade VIII SMPN 2 Batang Toru Tapanuli Selatan. *ENGLISH EDUCATION JOURNAL: English Journal for Teaching and Learning*, 6(2), 241–252.
- Ricardo, R., & Meilani, R. I. (2017). Impak Minat dan Motivasi Belajar terhadap Hasil Belajar Siswa. *Jurnal Pendidikan Manajemen Perkantoran (JPManper)*, 2(2), 188–201.
- Sugiyono. (2018). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.