

## **OPTIMIZATION OF ISLAMIC RELIGION EDUCATION IN THE DIGITAL AGE: A STUDY ABOUT THE USABILITY OF MOBILE APPLICATIONS LEARNING**

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### **Abstract**

Islamic education faces the challenge of adapting information technology to improve the quality and accessibility of educational materials. The study aims to explore how mobile learning applications can optimize Islamic religious education in the digital age. Research methods conducted using literary study. The selection criteria include works that explicitly address the use of mobile learning technology in Islamic religious education or have direct implications on this subject. The data collection is focused on studies that cover the design, implementation, and effectiveness of mobile learning applications in the scope of religious education. The analysis is carried out through data synthesis to identify major findings, trends, and gaps in existing literature. Research results show that mobile learning applications offer great potential for optimizing Islamic religious education in the digital age. However, successful implementation requires collaborative efforts from the parties involved to address existing challenges and ensure that these technologies are integrated in a way that supports pedagogical goals.

Keywords: Optimization, Islamic Religious Education, Digital Age, Mobile Learning Applications.

### **Introduction**

The development of digital technology in Indonesia has experienced significant growth, especially since the beginning of the 21st century. (Mursitama et al., 2023). A major turning point in digital technology development in the country occurred around 2005-2007, with a more tangible acceleration after the 2010s. It not only reflects the transition in the way people communicate and access information, but it has also affected many other aspects of life, from economics to education. (Nanda et al., 2023).

Human beings living in today's digital age have become an integral part of everyday life. Digital technologies like smartphones and the Internet have not only affected the way we communicate, work, but have also brought about major changes in the world of education. (Sitopu et al., 2024). With the advent of technology, teaching and learning methods have evolved and changed from traditional models to more modern and efficient models. (Wagola et al., 2023).

Digital technology has helped in the development of online learning or e-learning, creating more interactive learning materials using multimedia, such as video, animation, or games, students can more easily understand difficult concepts (Hartono et al., 2023). The Internet has also provided unlimited access to learning resources. There are many online platforms that provide free learning resources, such as Khan

Academy, Coursera, or edX, from which students can learn a wide range of topics. Technology has also helped improve communication and collaboration between students and teachers (Guna et al., 2024). With online collaboration platforms like Google Classroom or Zoom, students and teacher can communicate and collaborate effectively, even from a distance. (Alam, A. 2023).

However, although technology has provided many benefits to education, there are still challenges to face (Hairiyanto et al., 2024). For example, not all students have equal access to technology. Moreover, the use of technology in education requires new learning for teachers and students about how to use technology effectively and safely. (Okoye et al., 2023; Han, J., & Geng, X. 2023). Thus, it is important for educators and policymakers to continue to help and support the integration of technology into education.

Islamic education has also undergone changes with the changes in the digital age now. (Alfi et al., 2023). In the beginning, the use of traditional technology has shifted to modern. With the advancement of information and communication technology, Islamic education has also undergone evolution. (Tubagus et al., 2023). Technology opens up new opportunities to disseminate and learn Islamic values and teachings in a more exciting and interactive way. Virtual learning is also done as students can access lessons about Islam from scholars and educators around the world. Platforms like YouTube and Zoom are used to hold religious lectures, Qur'an interpretation classes, and hallucinations that can be followed from home. (Adam, A. 2023). There are mobile apps specifically for Islamic learning, such as a sholat reminder app, a digital Qur'an app that often includes tajwid features, translation, and tafsir, as well as a fiqh or hadith learning app. (Salsabila et al., 2023).

Social media, such as Facebook, Twitter, and Instagram, have become platforms that allow the sharing of Islamic content such as hadith quotes, verses of the Qur'an, and inspirational messages. Online forums and discussion groups, such as WhatsApp or Telegram groups, allow interaction between Muslims to discuss religious issues, study together, and share religious information or science. (Susanto, E. 2023). Islamic educational games and religious simulations can be used to teach children and adolescents about Islamic history, biographies of Islamic figures, and basic concepts in religion such as Hajj worship. (Mawardi, A. 2023).

Thus, information technology has revolutionized Islamic religious education, including the way we learn and teach Islamic religion education. The convenience brought by the Internet and various digital applications enables Islamic teaching and learning to be more accessible and tailored to individual needs (Halim et al., 2023). Unlimited by space and time, rich learning resources are accessible from anywhere, anytime, with just a few taps on the smart device. It opens new horizons in educating Muslims about their religious teachings in a more sophisticated and up-to-date manner. Technology not only provides an efficient platform for the dissemination of knowledge

but also facilitates more diverse and interactive learning approaches, contributing to a richer and more meaningful learning experience (Zulkhi et al., 2023).

In an increasingly advanced digital age, Islamic religious education faces various challenges that arise as a result of the sophistication of technology. (Aslan & Shiong, 2023). Although there are many advantages that technology offers in communicating and acquiring religious knowledge, there are also obstacles and challenges to face (Sugianto et al., 2023). From the issues of authenticity and credibility of information widespread on the Internet to the negative effects of uncontrolled use of social media, technology presents a complex area for teachers and students of Islam. (Fitri, D. D. 2023). In addition, the challenge of ensuring that religious values remain relevant and preserved in the ever-changing teaching methods is also a major focus. Therefore, in line with the increasing use of technology, sustained efforts are needed to address these challenges in order to ensure that Islamic religious education can continue to grow healthy and productive in an increasingly digital society. (Barokah, J. 2023). Moreover, Islamic education plays an important role in shaping the character and moral values of individuals. It becomes a unique challenge in adapting the traditional Islamic education approach in a format that is acceptable to the digital generation. (Sukana, S. 2024). Therefore, the study aims to evaluate and optimize how Islamic religious education can be integrated into mobile learning applications.

Islamic education is an important aspect in developing moral and spiritual values in society. Traditionally, this education is delivered through live teaching methods and face-to-face interaction between teachers and students. (Sembiring et al., 2024; Sulaiman et al., 2024). However, the development of information technology has created significant changes in the way education is delivered and received.

This research is expected to provide useful insights and recommendations on how to educate younger generations in Islamic religion through the use of technology. So we can produce more effective and relevant educational methods in this digital age.

## **Research Method**

The research method used in this research is the study of literature. Literature research method is a research technique that involves the review, identification, and analysis of various literary sources related to a specific research topic or question. (Richardson, 2018; Antin et al., 2015; Marshall et al., 2013).

The steps taken by the researchers of this literary study consist of; 1) Collection of sources: Starting by searching and collecting literary sources relevant to the topic of the title. These sources can be books, articles, scientific journals, theses and dissertations, or online publications. 2) Reading and Evaluation: Once the resources have been collected, read and evaluate each source for its relevance to the research topic. During this process, researchers make important notes and identify key themes or ideas. 3) Analysis and interpretation: After performing readings and evaluations, the

researchers then analyze and interpret information that has been collected. The process involves drawing up key ideas or themes, identifying relationships between these ideas, and making conclusions based on analysis. 4) Writing: After the analysis is completed, the final step is to compile the results of literary research into a systematic and logical form of writing that includes an introduction, a literary review, methodology, results and interpretation, as well as conclusions. (Marshall et al., 2013; Punch, 2013; Adhabi & Anozie, 2017).

## **Result and Discussion**

### **Islamic Education**

Education is a systematic and structured process in which individuals or groups acquire knowledge, skills, values, and attitudes through various methods such as teaching, training, and practical experience. The educational process takes place not only in formal environments such as schools or universities but also through non-formal and informal environments (Nurhayati et al., 2023); (Muharrom et al., 2023).

Education aims to facilitate individual learning as well as the development of their potential to better quality of life and contribute to society (Nurdiana et al., 2023). Education is also aimed at shaping character, fostering critical thinking, and providing tools for active participation in society. (Erwan et al., 2023).

Education has very broad aspects and can be defined differently depending on the cultural, philosophical, and social context in which it is applied. However, in all definitions, the primary focus is on individual learning and development. (Sarmila et al., 2023).

Islamic education is a teaching process based on the principles and values taken from Islam. This education is not only aimed at equipping individuals with knowledge and skills in the aspects of earthly life, but also to guide them in understanding and practicing the teaching of Islam as a comprehensive way of life. (Haddar et al., 2023; Sulastri et al., 2023).

The concept of Islamic education is rooted in the Quran and Sunnah, integrating spiritual, intellectual, physical, and social aspects in its education. Education in Islam is regarded as a very noble duty and an essential part in the formation of the character, ethics, and personality of a Muslim. (Baharuddin et al., 2024).

Islamic education includes: 1) Tauhid: Focusing on the recognition and understanding of the essence of God as the primary foundation in the life of a Muslim. 2) Worship and Moral: Educating about the importance of worship as well as the development of noble morals according to the direction of religion. 3) Science: Emphasizing the important search for knowledge in various fields of life as part of the worshipping and efforts to know the greatness of God through His creation. 4) Worldly and Ukhravi balance: Islamic Education aims to create a balance between worldly life (material) and ukhravi (spiritual), leading the individual to success in the world and the

future. 5) Integration of Science: Integrating the religious sciences and general sciences, thus enabling a Muslim to live a life in accordance with the directions of Islam while remaining an active contributor to society and civilization. (Diana et al., 2024; Setyowati et al., 2024).

Islamic education is implemented through various institutions, ranging from the madrasah, the gymnasium, to the university. The teaching material includes the study of religious texts (such as the interpretation of the Qur'an and Hadiths), fiction, akidah, as well as modern sciences presented within the framework of the Islamic world view. (Mufron et al., 2024).

### **Digital learning and mobile applications in education**

Learning is an active process in which individuals acquire new knowledge, skills, values, attitudes, and understanding through interaction, experience, or study. The process involves not only the passive reception of information, but also the active processing and application of such knowledge in various contexts. Learning can take place in formal environments, such as schools and universities, or in non-formal and informal contexts. (Tuhuteru et al., 2023).

Key Learning Elements include: 1) Teachers or Facilitators: Individuals who provide guidance, direction, material, and support in the learning process. 2) Disciple participants: individuals or groups who actively participate in the process of learning to develop new competences or understanding. 3) Teaching content or materials: Information or knowledge needed to the learning objectives. 4) Learning methods: Methods or techniques used to facilitate the transfer of knowledge or skills to the disciple. This can include lectures, discussions, practices, collaborative projects, problem-based learning, and so on. 5) Learning Environment: The place or situation in which the learning process takes place. It can be in a classroom, an online environment, or in the field, depending on the method and purpose of learning. (Aslan & Pong, 2023; Astuti et al., 2023).

Learning objectives generally include cognitive (knowledge), affective (perspective), and psychomotor aspects. (keterampilan). Learning is aimed at building understanding, developing critical thinking skills, enhancing practical competence, and shaping character and positive attitudes among learners. (Widjaja & Aslan, 2022; Widjaja & Aslan, 2022).

Modern learning often adopts a participatory-oriented approach, where their needs, experiences, and learning processes are considered central to the design and implementation of the learning process. This approach focuses on active, collaborative, and reflective learning, as well as the use of technology to support and enrich the learning experience. (Sitepu et al., 2022).

Learning is a continuous and lifelong process, enabling individuals to continue to develop and adapt to changes and new challenges in their personal and professional lives. (Aslan, 2022).

Meanwhile, digital refers to everything related to technology, the internet, and electronic devices used to process, store, and communicate information in digital formats. The digital revolution has changed the way we live, work, play, and interact, having a significant impact on global societies, economies, and cultures. Digital is not independent of the Internet, one of which the Internet provides mobile applications (Hakimi et al., 2024; Quvvatov, B. 2024).

A mobile app is a type of software or program designed specifically to operate on a mobile device, such as a smartphone or tablet. A mobile application offers a variety of functions ranging from entertainment, education, business, to everyday services. Mobile apps consist of several types, namely: 1) Native apps: Made specifically for a specific operating system (e.g. iOS or Android). These apps usually offer better system performance and integration, but require separate development and maintenance for each platform. 2) Web Applications: A web site designed to function like a mobile application with the help of technologies like HTML. This type of application can run on different platforms but may not have features and performance comparable to a native application. 3) Hybrid applications: Combines elements of native applications and web applications. They were developed using standard web technology and then packaged in native containers to be installed like ordinary applications. (Gencturk et al., 2024; Li, Q., & Chan, K. K. 2024).

From some of the explanations above, it can be explained that digital learning is an educational approach that utilizes digital technology to deliver lessons, facilitate communication between teachers and students, and support collaboration and interaction in learning. One of the most popular forms of digital learning is a mobile application designed specifically for education.

1) Mobile Learning: Students can learn anytime and anywhere, providing flexibility and convenience. 2) Interactivity: Many educational applications are designed to be interactive, allowing students to participate actively in the learning process. 3) Individualization Learning: Educational applications can adjust the learning material and speed according to the needs and abilities of each student. 4) Digital Skill Development: Using learning applications helps students develop digital skills that are important in today's era. 5) Access to Extensive Learning Resources: Educational applications can be portal access to a variety of learning resources, such as digital books, video tutorials, as well as interactive quizzes and exercises (Quan et al., 2024; Ogata et al., 2024).

Popular Mobile Applications in Education consist of; 1) Khan Academy: Provides video lessons, exercises, and tests for a variety of subjects. 2) Duolingo: an interactive and easy-to-use language learning application. 3) Google Classroom: Learning management platform that allows teachers and students to interact and collaborate

digitally. 4) Quizlet: Provides learning tools such as flashcards, quizzes, and games for a variety of subjects. 5) Edmodo: An educational social network that facilitates communication between teachers, students, and parents. 6) Photomath: Allows students to photograph mathematical problems and get steps to solve them instantly. 7) Coursera: Provides access to online courses from leading universities around the world (Zafrullah, Z., & Ramadhani, A. M. 2024; Li et al., 2024).

Thus, using mobile applications in education has great potential to enrich student learning experiences and support more inclusive and effective education. However, it is important to ensure that the use of technology does not replace social interaction and real learning experiences that are also important in education. Besides, issues such as technology access gaps and data privacy also need to be addressed and addressed wisely.

### **Mobile Learning in Islamic Education**

Mobile learning in Islamic education can be defined as the use of mobile technology, such as smartphones and tablets, to support the learning process of teaching Islamic values, teachings, and principles to learners. The use of this technology enables learning to be more flexible and accessible anytime and anywhere. Educational content presented through mobile learning can include text, images, videos, and other interactive resources aimed at enriching learning experiences about Islam. Mobile technology facilitates more dynamic and interactive learning methods, which can enhance understanding and application of Islamic teachings in everyday life. (Zh et al., 2024; Diana et al., 2024; Baharuddin et al., 2024).

A mobile application that is commonly used in education, which can help the teaching learning process become more interactive and efficient, consists of; 1) Google Classroom: a platform that allows teachers to create classes online, manage tasks, schedule, and communicate with students efficiently. 2) Kahoot: A game-based learning platform, which is used as educational technology in schools to make learning more enjoyable with a variety of quiz options. 3) Quizizz: This application allows the creation of interactive quizzes for learning or assessment, with double choices and open questions, and can be used in real time or assigned as homework. 4) Kipin School 4.0: Educational applications that revolutionize the world of education by providing cheap, equal, and effective distribution of educational content. Equipped with the exclusive “My School” feature as a digital school library and a digital-based exam that supports AKM (Khodabandelou et al., 2022).

These applications reflect several ways in which technology can be integrated into education to support hybrid or fully online learning, leveraging technological advances to improve the quality of education.

Mobile learning in Islamic education has tremendous potential in providing broader and more flexible access to students to learn and understand religious

teachings. The potential benefits of mobile learning in Islamic education include; 1) Enhanced Accessibility: The mobile application allows students to access educational materials and learning resources from anywhere and anytime. This is very helpful especially for those who live in remote areas or have limited access to formal educational institutions or teachers. 2) Time and place flexibility: With mobile learning, students have the freedom to learn according to their own pace and schedule. This can help them to feel more engaged and motivated in learning. 3) Interactive and Funny: Most educational mobile apps are designed in an interactive and visual way, which can make the learning-teaching process more exciting and fun. 4) Materials in depth: This application can also help students to get a better understanding of various Islamic religious topics and concepts, through the provision of various learning resources such as videos, articles, quizzes, and others (Soleha, M. (2023; Ahmad et al., 2020).

Therefore, the use of mobile applications in Islamic education should be an important part of the learning strategy, to support students in developing their understanding and skills about Islamic teachings. Learning strategy is an approach or method used by a teacher to convey science and make students understand, understand, and absorb the materials taught.

The strategy that is the focus of mobile learning in education, includes; 1) Selection of appropriate content. Selecting educational content that matches the values and teachings of Islam, as well as ensuring that the content is relevant to the curriculum taught. Pre-evaluation of content by experts is required to ensure the relevance and accuracy of information. 2) Development of Educational Mobile Applications. Develop or adopt learning applications that are specifically designed for Islamic learning. These applications should be easy to use, visually attractive, and offer interactive features that support independent and collaborative learning. 3) Training for Teachers. Training and workshop for teachers on how to use mobile learning technology as a teaching tool. This includes learning about how to integrate learning applications into the curriculum. 4) Self-learning support. Encourage students to take responsibility for their own learning through the use of mobile technology. This could include getting them used to self-learning through educational apps and websites. 5) Integrating Hybrid Learning. Combining traditional learning techniques with mobile learning to create a rich learning experience. Using a mobile app as a complement and not as a replacement for face-to-face interaction. 6) Evaluation and Feedback. Providing an evaluation and feedback system for students and teachers, to ensure that learning applications meet educational needs and are effectively adapted in Islamic education. This can include questionnaires or discussion forums. 7) Security and Ethics Protocols. Implement data security protocols to protect the personal information of students and teachers. Furthermore, ensure that the use of technology is not contrary to Islamic ethics and values. 8) Collaboration and Partnership. Collaborate with other Islamic educational institutions, as well as technology companies and donor agencies, to

develop high-quality mobile learning resources and content (Moya, S., & Camacho, M. 2021; Rafiq et al., 2021; Khan, F. M., & Gupta, Y. 2022).

The adoption of mobile learning in Islamic education should be done with a planned and oriented approach to improving the quality of learning.

## **Conclusion**

The optimization of Islamic education in the digital age through the study of the use of mobile learning applications can be summarized as follows: 1) Technology integration: Mobile learning applications have become an important tool in modern education, enabling Islamic religion education to be more accessible and interactive. The integration of digital technology in religious curricula is an important step to maintain the relevance and effectiveness of education in today's era. 2) Personalization of learning: Mobile learning enables personalization of the learning process, where students can learn at their own pace, using materials tailored to the individual interests and needs of each student. 3) Inclusive education: Through mobile learning applications, Islamic religious education is accessible to a wider audience, including those who live in remote areas or who have physical constraints, thereby enhancing education inclusiveness. 4) Enhanced Engagement: The interactive and multimedia applications in mobile learning can increase the motivation and involvement of students in the study of Islam, making the material more interesting and understandable. 5) Flexibility and Accessibility: Mobile learning provides extraordinary flexibility for students to access educational materials anywhere and anytime, enabling more versatile and continuous learning. 6) Collaborative Learning: A mobile application can support collaborative learning, making it easier for students to communicate, discuss, and learn from each other, even if they are in different locations. 7) Enriching Learning Resources: With mobile learning, access to various sources of Islamic science becomes wider, including translations and interpretations of the Quran, hadiths, and other materials that can be easily downloaded and learned. 8) Teacher Professional Development: The use of mobile learning applications requires teachers to continue to develop their professional skills in integrating technology into teaching, which can improve the overall quality of education. 9) Security and Ethics Issues: Measures need to be taken to address data security and privacy issues and ensure that the content submitted is in line with Islamic values and ethics. 10) Collaboration and Support: Optimizing the use of mobile learning applications for Islamic religious education requires collaboration between policymakers, educational institutions, scholarly communities, and technology developers to ensure widespread success and acceptance.

## References

- Adam, A. (2023). Integrasi Media Dan Teknologi Dalam Pembelajaran Pendidikan Agama Islam. *Amanah Ilmu: Jurnal Kependidikan Islam*, 3(1), 13-23.
- Adhabi, E., & Anozie, C. B. (2017). Literature review for the type of interview in qualitative research. *International Journal of Education*, 9(3), 86–97.
- Ahmad, N., Hoda, N., & Alahmari, F. (2020). Developing a cloud-based mobile learning adoption model to promote sustainable education. *Sustainability*, 12(8), 3126.
- Alam, A. (2023, April). Media Multitasking with M-Learning Technology in Real-Time Classroom Learning: Analysing the Dynamics in Formal Educational Settings for the Future of E-Learning in India. In *2023 2nd International Conference on Smart Technologies and Systems for Next Generation Computing (ICSTSN)* (pp. 1-6). IEEE.
- Alfi, A. M., Febriasari, A., & Azka, J. N. (2023). Transformasi pendidikan agama islam melalui teknologi. *Religion: Jurnal Agama, Sosial, dan Budaya*, 1(4), 511-522.
- Antin, T. M., Constantine, N. A., & Hunt, G. (2015). Conflicting discourses in qualitative research: The search for divergent data within cases. *Field Methods*, 27(3), 211–222.
- Aslan, A. (2022). RELEVANCY OF RESEARCH EVIDENCE WITH THE SUCCESS OF ALQURAN MEMORISING: YOUNG HAFIZ MOTIVATIONAL APPROACH. *Jurnal Ilmu Pendidikan Islam*, 20(1), Article 1. <https://doi.org/10.36835/jipi.v20i1.3929>
- Aslan, A., & Pong, K. S. (2023). Understanding the Trend of Digital Da'wah Among Muslim Housewives in Indonesia. *Fikroh: Jurnal Pemikiran Dan Pendidikan Islam*, 16(1), Article 1. <https://doi.org/10.37812/fikroh.v16i1.681>
- Aslan, A., & Shiong, P. K. (2023). Learning in the Digital Age Full of Hedonistic Cultural Values Among Elementary School Students. *Bulletin of Pedagogical Research*, 3(2), 94. <https://doi.org/10.51278/bpr.v3i2.515>
- Astuti, S. E. P., Aslan, A., & Parni, P. (2023). OPTIMALISASI PERAN GURU DALAM PROSES PEMBELAJARAN KURIKULUM 2013 DI MADRASAH IBTIDAIYAH SWASTA. *SITTAH: Journal of Primary Education*, 4(1), Article 1. <https://doi.org/10.30762/sittah.v4i1.963>
- Baharuddin, B., Isnaini, E., & Lusiana, L. (2024). Islamic Education Curriculum That is Relevant to the Challenges of the Times. *East Asian Journal of Multidisciplinary Research*, 3(3), 1045-1060.
- Baharuddin, B., Isnaini, E., & Lusiana, L. (2024). Islamic Education Curriculum That is Relevant to the Challenges of the Times. *East Asian Journal of Multidisciplinary Research*, 3(3), 1045-1060.
- Barokah, J. (2023). Tren dan perkembangan dalam pembelajaran berbasis teknologi dalam pendidikan agama islam. *GUAU: Jurnal Pendidikan Profesi Guru Agama Islam*, 3(5), 202-213.
- Diana, A., Azani, M. Z., & Mahmudulhassan, M. (2024). The Concept and Context of Islamic Education Learning in the Digital Era: Relevance and Integrative Studies. *Profetika: Jurnal Studi Islam*, 25(01), 33-44.
- Diana, A., Azani, M. Z., & Mahmudulhassan, M. (2024). The Concept and Context of Islamic Education Learning in the Digital Era: Relevance and Integrative Studies. *Profetika: Jurnal Studi Islam*, 25(01), 33-44.
- Erwan, E., Aslan, A., & Asyura, M. (2023). INTERNALISASI BUDAYA RELIGIUS OLEH GURU AKIDAH AKHLAK UNTUK MENUMBUHKAN SIKAP AKHLAK MULIA DI MIS

- BINA DHARMA PARIT RABU. JURNAL PENDIDIKAN DAN KEGURUAN, 1(6), Article 6.
- Fitri, D. D. (2023). Perkembangan Teknologi Informasi Dan Komunikasi Dalam Pembelajaran Pendidikan Agama Islam. *Arus Jurnal Psikologi dan Pendidikan*, 2(1), 52-57.
- Gencturk, B., Arsoy, S., Taspinar, Y. S., Cinar, I., Kursun, R., Yasin, E. T., & Koklu, M. (2024). Detection of hazelnut varieties and development of mobile application with CNN data fusion feature reduction-based models. *European Food Research and Technology*, 250(1), 97-110.
- Guna, B. W. K., Yuwantiningrum, S. E., Firmansyah, S. M. D. A., & Aslan. (2024). Building Morality and Ethics Through Islamic Religious Education In Schools. *IJGIE (International Journal of Graduate of Islamic Education)*, 5(1), Article 1. <https://doi.org/10.37567/ijgie.v5i1.2685>
- Haddar, G. A., Haerudin, H., Riyanto, A., Syakhrani, A. W., & Aslan, A. (2023). THE REVOLUTION OF ISLAMIC EDUCATION THOUGHT IN THE ERA OF SOCIETY 5.0: CORRECTIONS AND ANALYSIS OF STUDIES IN ISLAMIC HIGHER EDUCATION INSTITUTIONS IN SOUTH KALIMANTAN. *International Journal of Teaching and Learning*, 1(4), Article 4.
- Hairiyanto, Sartika, E., Fransiska, F. W., & Aslan. (2024). UNDERSTANDING THE STUDENTS' ENGLISH LEARNING ACHIEVEMENT AND HOME ENVIRONMENT SUPPORTS DURING SCHOOL CLOSURE TO RESPOND TO PANDEMIC AT PRIVATE MADRASAH TSANAWIYAH AT-TAKWA SAMBAS. *International Journal of Teaching and Learning*, 2(4), Article 4.
- Hakimi, M., AKRAMI, M., AHRARI, M., AKRAMI, K., & AKRAMI, F. (2024). The Impact of Mobile Applications on Quran Education: A Survey of Student Performance and Satisfaction. *Journal of Digital Learning and Distance Education*, 2(8), 722-736.
- Halim, N., Muhammad, D. H., & Arifin, M. (2023). Peran Guru Pendidikan Agama Islam Dalam Pembentukan Akhlak Terhadap Perkembangan Teknologi Di SDN Sumberkare II Kabupaten Probolinggo. *LECTURES: Journal of Islamic and Education Studies*, 2(1), 44-54.
- Han, J., & Geng, X. (2023). University students' approaches to online learning technologies: The roles of perceived support, affect/emotion and self-efficacy in technology-enhanced learning. *Computers & Education*, 194, 104695.
- Hartono, R., Judijanto, L., Napis, M. S. H., & Abda, M. I. (2023). Digital Learning Innovation in Indonesia. *Journal of Technology Global*, 1(01), 34-43.
- Khan, F. M., & Gupta, Y. (2022). A bibliometric analysis of mobile learning in the education sector. *Interactive Technology and Smart Education*, 19(3), 338-359.
- Khodabandelou, R., Fathi, M., Amerian, M., & Fakhraie, M. R. (2022). A comprehensive analysis of the 21st century's research trends in English Mobile Learning: a bibliographic review of the literature. *The international journal of information and learning technology*, 39(1), 29-49.
- Li, Q., & Chan, K. K. (2024). Test takers' attitudes of using exam-oriented mobile application as a tool to adapt in a high-stakes speaking test. *Education and Information Technologies*, 29(1), 219-237.

- Li, Q., Luximon, Y., Zhang, J., & Song, Y. (2024). Measuring and classifying students' cognitive load in pen-based mobile learning using handwriting, touch gestural and eye-tracking data. *British Journal of Educational Technology*, 55(2), 625-653.
- Marshall, B., Cardon, P., Poddar, A., & Fontenot, R. (2013). Does sample size matter in qualitative research?: A review of qualitative interviews in IS research. *Journal of Computer Information Systems*, 54(1), 11–22.
- Mawardi, A. (2023). Edukasi pendidikan agama islam dalam pemanfaatan sumber-sumber elektronik pada siswa madrasah ibtidaiyah. *Journal on Education*, 6(1), 8566-8576.
- Moya, S., & Camacho, M. (2021). Identifying the key success factors for the adoption of mobile learning. *Education and Information Technologies*, 26, 3917-3945.
- Mufron, A., Fata, T. H., & Rohmani, A. (2024). The Concept of Islamic Education Today in the Challenges of the Social Media Era. *Al-Hijr: Journal of Adulearn World*, 3(1).
- Muharrom, M., Aslan, A., & Jaelani, J. (2023). IMPLEMENTASI KURIKULUM MERDEKA BELAJAR PADA PEMBELAJARAN PENDIDIKAN AGAMA ISLAM DI SMK PUSAT KEUNGGULAN SMK MUHAMMADIYAH SINTANG. *Jurnal Ilmu Pendidikan Dan Kearifan Lokal*, 3(1), Article 1.
- Mursitama, T. N., Karim, M. F., Natanael, K. A. C., Setiadi, N. J., Husodo, Z. A., Mukhtar, S., & Noerlina, N. (2023, April). Developmental state and digital infrastructure: The case of Indonesia. In *AIP Conference Proceedings* (Vol. 2594, No. 1). AIP Publishing.
- Nanda, W. D., Widianingsih, I., & Miftah, A. Z. (2023). The linkage of digital transformation and tourism development policies in Indonesia from 1879–2022: Trends and implications for the future. *Sustainability*, 15(13), 10201.
- Nurdiana, R., Effendi, M. N., Ningsih, K. P., Abda, M. I., & Aslan, A. (2023). COLLABORATIVE PARTNERSHIPS FOR DIGITAL EDUCATION TO IMPROVE STUDENTS' LEARNING ACHIEVEMENT AT THE INSTITUTE OF ISLAMIC RELIGION OF SULTAN MUHAMMAD SYAFI UDDIN SAMBAS, INDONESIA. *International Journal of Teaching and Learning*, 1(1), Article 1.
- Nurhayati, N., Aslan, A., & Susilawati, S. (2023). PENGGUNAAN TEKNOLOGI GADGET SEBAGAI MEDIA PEMBELAJARAN PADA ANAK USIA DINI DI RAUDHATUL ATFHAL AL-IKHLAS KOTA SINGKAWANG. *JIP: Jurnal Ilmu Pendidikan*, 1(3), Article 3.
- Ogata, H., Majumdar, R., Flanagan, B., & Kuromiya, H. (2024). Learning analytics and evidence-based K12 education in Japan: usage of data-driven services for mobile learning across two years. *International Journal of Mobile Learning and Organisation*, 18(1), 15-48.
- Okoye, K., Hussein, H., Arrona-Palacios, A., Quintero, H. N., Ortega, L. O. P., Sanchez, A. L., ... & Hosseini, S. (2023). Impact of digital technologies upon teaching and learning in higher education in Latin America: an outlook on the reach, barriers, and bottlenecks. *Education and Information Technologies*, 28(2), 2291-2360.
- Punch, K. F. (2013). *Introduction to social research: Quantitative and qualitative approaches*. sage.
- Quan, Z., Grant, L., Hocking, D., & Connor, A. (2024). Distinctive mobile learning: Where it is different and how it can make a difference. *Interactive Learning Environments*, 32(1), 257-272.

- Quvvatov, B. (2024). GLOBAL IN VIRTUAL LEARNING MOBILE APP CREATION INFORMATION SYSTEMS AND TECHNOLOGIES. *Science and innovation in the education system*, 3(1), 95-104.
- Rafiq, K. R. M., Hashim, H., & Yunus, M. M. (2021). Sustaining education with mobile learning for English for specific purposes (ESP): A systematic review (2012–2021). *Sustainability*, 13(17), 9768.
- Richardson, H. (2018). Characteristics of a comparative research design. Retrieved from Classroom Synonym: <https://Classroom.Synonym.Com/Characteristicscomparative-Research-Design-8274567>. Html.
- Salsabila, U. H., Hanifan, M. L. N., Mahmuda, M. I., Tajuddin, M. A. N., & Pratiwi, A. (2023). Pengaruh Perkembangan Teknologi terhadap Pendidikan Islam. *Journal on Education*, 5(2), 3268-3275.
- Sarmila, U., Aslan, A., & Astaman, A. (2023). THE ROLE OF PARENTS TOWARDS YOUTUBE USERS IN BUILDING CHILDREN'S RELIGIOUS BEHAVIOR IN KUALA PANGKALAN KERAMAT VILLAGE. *Archipelago Journal of Southeast Asia Islamic Studies (AJSAIS)*, 1(2), Article 2.
- Sembiring, I. M., Ilham, I., Sukmawati, E., Maisuhetni, M., & Arifudin, O. (2024). Pendidikan Agama Islam Berwawasan Global Sebagai Dasar Paradigma Dan Solusi Dalam Menghadapi Era Society 5. *Innovative: Journal Of Social Science Research*, 4(2), 305-314.
- Setyowati, R. D., Ningsih, D., & Pahrudin, A. (2024). Opportunities and Challenges of Islamic Education Management in Facing the Global Era. *JMKSP (Jurnal Manajemen, Kepemimpinan, dan Supervisi Pendidikan)*, 9(1), 167-180.
- Sitepu, M. S., Maarif, M. A., Basir, A., Aslan, A., & Pranata, A. (2022). Implementation of Online Learning in Aqidah Akhlak Lessons. *AL-ISHLAH: Jurnal Pendidikan*, 14(1), Article 1. <https://doi.org/10.35445/alishlah.v14i1.1401>
- Sitopu, J. W., Khairani, M., Roza, M., Judijanto, L., & Aslan, A. (2024). THE IMPORTANCE OF INTEGRATING MATHEMATICAL LITERACY IN THE PRIMARY EDUCATION CURRICULUM: A LITERATURE REVIEW. *International Journal of Teaching and Learning*, 2(1), Article 1.
- Soleha, M. (2023). Islamic Education in The Era of Globalization. *Jurnal Ilmiah Profesi Pendidikan*, 8(3), 2032-2040.
- Sugianto, O., Munawaroh, L., Supriani, I., Cahyono, H. N., & Nyairoh, N. (2023). Peran Teknologi dalam Pembelajaran Pendidikan Agama Islam. *IJoIS: Indonesian Journal of Islamic Studies*, 4(1), 17-24.
- Sukana, S. (2024). Transformasi Pengawas Pendidikan Agama Islam (PAI) Di Era Digital: Tantangan Dan Peluang Tahun 2024. *Jurnal Pendidikan Tambusai*, 8(1), 3955-3965.
- Sulaiman, M., Rukhmana, T., Irawan, I., Muhammadong, M., Al Haddar, G., & Supriyanto, A. (2024). Analisis Penerapan Teknologi dalam Pembelajaran Pendidikan Agama Islam. *Journal on Education*, 6(2), 14626-14631.
- Sulastri, S., Aslan, A., & Rathomi, A. (2023). STRATEGI GURU PENDIDIKAN AGAMA ISLAM DALAM PENYAMPAIAN MATERI PADA ANAK TUNAGRAHITA DI SEKOLAH LUAR BIASA NEGERI SAMBAS TAHUN PELAJARAN 2022/2023. *Lunggi Journal: Literasi Unggulan Ilmiah Multidisipliner*, 1(4), Article 4.

- Susanto, E. (2023). Pendekatan Pendidikan Islam Berbasis Teknologi dalam Pembelajaran Mata Pelajaran Agama Islam di Sekolah Dasar. *Jurnal LENTERA: Jurnal Studi Pendidikan*, 5(2), 103-118.
- Tubagus, M., Haerudin, H., Fathurohman, A., Adiyono, A., & Aslan, A. (2023). THE IMPACT OF TECHNOLOGY ON ISLAMIC PESANTREN EDUCATION AND THE LEARNING OUTCOMES OF SANTRI: NEW TRENDS AND POSSIBILITIES. *Indonesian Journal of Education (INJOE)*, 3(3), Article 3.
- Tuhuteru, L., Misnawati, D., Aslan, A., Taufiqoh, Z., & Imelda, I. (2023). The Effectiveness of Multimedia-Based Learning To Accelerate Learning After The Pandemic At The Basic Education Level. *Tafkir: Interdisciplinary Journal of Islamic Education*, 4(1), Article 1. <https://doi.org/10.31538/tijie.v4i1.311>
- Wagola, R., Nurmandi, A., Misran, & Subekti, D. (2023, July). Government Digital Transformation in Indonesia. In *International Conference on Human-Computer Interaction* (pp. 286-296). Cham: Springer Nature Switzerland.
- Widjaja, G., & Aslan, A. (2022). Blended Learning Method in The View of Learning and Teaching Strategy in Geography Study Programs in Higher Education. *Nazhruna: Jurnal Pendidikan Islam*, 5(1), Article 1. <https://doi.org/10.31538/nzh.v5i1.1852>
- Zafrullah, Z., & Ramadhani, A. M. (2024). The use of mobile learning in schools as a learning media: Bibliometric analysis. *Indonesian Journal of Educational Research and Technology*, 4(2), 187-202.
- Zh, M. H. R., Thariq, Z. Z. A., & Ardiansyah, A. (2024, April). MOBILE LEARNING: FUTURE LEARNING TECHNOLOGIES FOR ISLAMIC FORMAL EDUCATION (A LITERATURE STUDY). In *Proceedings of International Conference on Education* (Vol. 2, No. 1, pp. 370-377).
- Zulkhi, M. D., Yulistranti, A. E., & Damayanti, L. (2023). Pengaruh Pengintegrasian Teknologi Media Kahoot Pada Pembelajaran Pendidikan Agama Islam Di Sekolah Dasar. *Jurnal Gentala Pendidikan Dasar*, 8(2), 253-261.