

Optimizing the Development of Islamic Religious Education Teaching Materials in Facing Inclusive Digital Learning

*Mukhlis

Sekolah Tinggi Agama Islam (STAI) Al-Jami Banjarmasin.

Abstract

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The optimization of Islamic Religious Education (IRE) teaching materials in the digital era plays a crucial role in creating an inclusive and effective learning environment. This study aims to analyze strategies for developing IRE teaching materials that can accommodate the diverse needs of students through the utilization of digital technology. The research findings indicate that the use of digital media, such as learning applications, interactive videos, and online learning platforms, can enhance accessibility and students' understanding of IRE materials. With an inclusive approach, these teaching materials not only convey Islamic values but also facilitate students from various backgrounds to learn more effectively and enjoyably. The implementation of optimized teaching materials will positively impact the improvement of Islamic education quality and help shape students with tolerant and adaptive characters in response to technological advancements.

Keywords:

Teaching Material Development, Islamic Religious Education, Digital Learning

(*) Corresponding Author: mukhlisahmadmuaidi@gmail.com

A. Introduction

The world is now in an era of progress connected by technology and digital-based communication and information devices. This era is none other than the digital era. The digital era can be interpreted as a situation where the use of digital-based communication and information devices (the internet) is increasingly massive and dominates various daily human activities, starting from economic activities, arts, sports, government, education, social, and so on.¹

The digital era is a condition where everyone can access various information on the network (online). Various information in this era is freely available in cyberspace, making it easy for anyone to access it without limits of space and time. The world became completely devoid of barriers after the discovery of the digital system. Everyone, especially those born as digital natives, has a tendency to search for information via the internet. They prefer to use the features of smartphones or other technological devices to surf the internet either to seek entertainment or to fulfill primary needs. Music and films can be enjoyed directly or

¹Nuryadin Nuryadin, 'Islamic Education Strategy in the Digital Era', *FITRAH: Journal of Islamic Studies* 3, no. 1 (30 June 2017): h. 209.

downloaded in advance for free or paid at relatively cheap rates. For scientific needs and access to information, someone can get articles freely without any requirements at all in the digital world.²

In this era too, conditions or life where all activities that support life can be made easier by the existence of sophisticated technology. Apart from that, the digital era was also created to replace some of the technologies of the past to make them more modern and more practical. It can be concluded that the development of the PAI curriculum at Islamic education institutions in the digital era is a process of developing technology-based learning as a reference for the continuity of education to continue to develop and utilize digital facilities to achieve quality and meaningful education.³

Digital technology has brought significant changes to the learning process. The presence of e-learning platforms, educational applications and digital resources has opened up new opportunities to improve the quality of learning and facilitate access to wider information. However, the integration of digital technology in the PAI curriculum is still a challenge in itself due to concerns about negative impacts such as the dissemination of information that is not in accordance with Islamic values or excessive use of technology that can divert students' attention from the main goal of learning.⁴ Therefore, appropriate development strategies are needed in Islamic religious education in the digital era to help students understand religion correctly, critically and based on science.

Apart from that, developments in technology and digital media also provide new opportunities to strengthen Islamic religious education. Digital media can be used to convey religious teachings in an interactive, interesting and creative way. This allows easy access to religious texts, commentaries, lectures, and other resources that can broaden students' understanding of religion. In addition, the use of technology also facilitates communication between teachers and students, allowing for active participation in discussions and sharing of thoughts.

In this case, it is necessary to study how technology and digital media can be used well in the Islamic religious education curriculum, how to involve

²Muhammad Rizfani, Muhammad Mauladi, and Arya Wardana, 'Religious Education in the Digital Era', *Islamic Education* 3, no. 1 (20 May 2024): h. 146.

³Aslahudin Aslahudin et al., 'Development of the Islamic Religious Education Curriculum in Islamic Education Institutions in the Digital Era', *Tahsinia Journal* 4, no. 2 (29 October 2023): h. 199, <https://doi.org/10.57171/jt.v4i2.514>.

⁴Saprullah Saprullah and M. Sirozi, 'Developing an Islamic Religious Education (PAI) Curriculum that is Adaptive to the Development of Digital Technology', *Indo-MathEdu Intellectuals Journal* 5, no. 3 (10 July 2024): h. 3717, <https://doi.org/10.54373/imeij.v5i3.1385>.

teachers in the effective use of technology, and how to involve parents in supporting understanding of religion at home.⁵

To face increasingly complex educational challenges, teachers must continue to innovate to make learning easier. Due to advances in technology, teaching staff are no longer teachers in front of the class. This is in line with Andriani, who stated that teachers are no longer the only source of learning, but only one source of information that can be accessed by learning participants. Students can be more active in developing IT when they have access to all information as teaching materials to create a more active learning environment. Teachers are professional educators, because a teacher implicitly volunteers to accept and assume some of the educational responsibilities that rest on the shoulders of parents. When parents hand over their children to school, it means delegating some of the responsibility for their children's education to the teacher. Teachers' duties and responsibilities for education are limited to the authority given by parents. Likewise, it is limited as long as the child is studying at that school, and outside of this, everything is not within the authority of the school teacher.

The use of technology in education is seen from an Islamic perspective as an effort to achieve the true goals of education. Apart from that, technology helps the PAI learning process maximize the teaching and learning process and increase students' understanding of what the teacher teaches. PAI learning process technology helps students understand the content taught by teachers. Examples include the use of the Internet to communicate with teachers and students, the use of meeting room applications to set up Internet-based classrooms, and the use of audio and visual media.⁶

Islamic education is currently faced with various developments that necessitate changes and improvements so that it is able to adapt to these changes. The development of science and technology has given birth to various media that can be used to develop Islamic education. If in the classical era, Islamic education could only reach local community targets with relatively low quality, with the existence of multi-media, especially the internet, Islamic education can take place with unlimited reach, in a very short time, and of higher quality. Islamic education experts are required to use and develop the latest educational media so that Islamic education can be side by side with general education which has recently experienced a significant and very encouraging leap. This will happen if leaders and educators in various Islamic educational institutions start to improve the quality of education and

⁵Moh Ilyas and Jauhar Maknun, 'Strategy for Developing Religious Literacy in Islamic Education in the Digital Era', *Journal of Education and Religious Studies* 3, no. 01 (10 April 2023): h. 9, <https://doi.org/10.57060/jers.v3i01.70>.

⁶Sri Irnawati Tangahu et al., 'Development of Teaching Materials for PAI Subjects in Public Schools Based on Digitalization', *Indonesian Research Journal on Education* 4, no. 2 (2 May 2024): h. 188, <https://doi.org/10.31004/irje.v4i2.510>.

their performance. If not, then the dream of improving the quality of Islamic education is just a dream.⁷

B. Theoretical basis

Understanding Development and Learning Strategy

Strategy Development Strategy comes from the Greek word "strategos" which means "a set of maneuvers carried out by a general to defeat the enemy in battle". In the Dutch-Indonesian dictionary, strategy comes from a compound term which means war tactics. The term strategy is used in a military context as an effort to achieve victory, so that in this context, effective and appropriate tactics and strategies are needed. Strategy, on the other hand, is a series of incremental actions that continually improve, based on an understanding of what customers expect in the future. In other words, strategy almost always starts by considering what might happen, not just based on the current situation.

Development refers to educational efforts, both in formal and non-formal forms, which are carried out consciously, planned, directed, organized and responsible. The aim is to introduce, grow, guide and develop the basis of a balanced, complete and harmonious personality, as well as knowledge and skills in accordance with the individual's talents, desires and abilities, in order to prepare for the future, a person needs to improve and develop oneself, as well as pay attention to other people and the environment, in order to achieve optimal human honor, quality and abilities as well as an independent person.⁸

Meanwhile, the learning strategy for Islamic Religious Education material is a form of planning that will be used as a measure, reference for the implementation of a learning process for Islamic Religious Education Material, which is made in a certain format, depicting an art or strategy that is prepared in detail, detailed, applicable, in which there are steps on how to implement it. Apart from that, it also contains planning learning objectives, competencies to be achieved, apart from that there are materials, materials, methods, media, sources of teaching materials and all other components needed to be used in the teaching and learning process, to achieve the objectives of the planned Islamic Religious Education material. In another sense, a learning strategy for Islamic Religious Education material is a plan regarding the methods, strategies that will be carried out to achieve the objectives of an activity or learning program or a plan that explains, in detail, the steps in how a program of learning activities for Islamic Religious Education material will be implemented both in the classroom and outside the

⁷Arman Paramansyah et al., 'Development of PAI Teaching Materials at Islamic Higher Education Institutions in the Digital Era', *Dirosah Islamiyah Journal* 6, no. 2 (1 June 2024): h. 399-400, <https://doi.org/10.47467/jdi.v6i2.1761>.

⁸Ilyas and Maknun, 'Religious Literacy Development Strategy in Islamic Education in the Digital Era', p. 9.

classroom, in which there is a plan for learning objectives, methods, media, materials, sources of teaching materials, forms of evaluation, and learning steps. With these steps it is hoped that the learning will be interesting, enjoyable, and the learning objectives will be achieved maximally effectively and efficiently in one semester.⁹

Learning materials

Learning material or also known as main material is the substance that will be taught in teaching and learning activities. The main material is the subject matter in the field of study held or taught by the teacher. The overall success of learning really depends on the success of the teacher in designing learning materials.¹⁰ Learning materials are essentially an inseparable part of the syllabus, namely planning, predictions and projections about what will be done during learning activities. In general, it can be stated that learning materials (instructional materials) are the knowledge, skills and attitudes that students must master in order to meet the competency standards set. Learning material occupies a very important position in the entire curriculum, which must be prepared so that the implementation of learning can achieve targets. These targets must be in accordance with the Competency Standards and Basic Competencies that must be achieved by students. This means that the material determined for learning activities should be material that truly supports the achievement of competency standards and basic competencies, as well as the achievement of indicators.¹¹

Learning materials are information, resources and tools used in the educational process to convey knowledge and skills to students. It includes all the elements necessary to support and facilitate learning, including the content taught, the learning resources used, and the activities and evaluations designed to help students understand and master a particular topic. Learning materials are designed with the aim of creating a learning experience that is structured, effective, and

⁹Ainal Mardhiah, *Learning Strategies for Islamic Religious Education Materials in the Digital Era* (2023), p. 30, https://repository.ar-raniry.ac.id/id/eprint/32723/?_cf_chl_tk=M4cHqgMhNLLYyUBDfjarY.q7iyNL7BdY0LPG7pIrd34-1724861248.-0.0.0.

¹⁰M.Yusuf Ahmad and Siti Nurjanah, 'The Relationship between Islamic Religious Education Learning Materials and Students' Emotional Intelligence', p. 4, accessed 6 September 2024, <https://journal.uir.ac.id/index.php/alhikmah/article/view/1509/947>.

¹¹Uci Nurhayati and Muhammad Nu'man, 'Components of Islamic Religious Education Learning Materials and Their Orientation in Madrasah Ibtidaiyah', *Kuttab: Journal of Islamic Education* 6, no. 2 (19 September 2022): h. 169, <https://doi.org/10.30736/ktb.v6i2.1138>.

appropriate to students' needs and level of understanding. It also helps in achieving set educational goals and ensures that students can acquire the knowledge and skills necessary for their academic and personal development.

Learning material is everything that is part of the curriculum that must be mastered by students in accordance with basic competencies in order to achieve competency standards for each subject in a particular educational unit. Learning material is the most important part of the learning process, even in learning that is centered on learning material (subject centered teaching), learning material is the core of learning activities. According to subject centered teaching, the success of a learning process is determined by how much students can master the curriculum material.

Learning resources and teaching materials are elements that have an important role in determining the learning process so that learning becomes effective and efficient in achieving goals. According to Rohani: A teaching and learning activity will be more effective and efficient in achieving instructional goals if it involves planned learning process components, because learning resources are an important component and have enormous benefits.

Developing teaching materials that are not only focused on one source of teacher teaching materials can develop students' intelligence and can also provide meaningful experiences for students. Teachers as developers of teaching materials should know what and how teaching materials are, so that teachers can develop teaching materials.

The development of teaching materials in the PAI curriculum is to expand and deepen learning materials or materials that have been systematically arranged in the form of texts, modules, audio, photos, videos, animations that can be used by teachers and students in learning activities. Meanwhile, what is meant by the development of learning resources in the PAI curriculum is that all places or surroundings, objects and people that contain information can be used to carry out the process of changing behavior. The forms are unlimited whether in print, video, software format or a combination of various formats that can be used by students or teachers.¹²

The aim of PAI teaching materials is to provide teaching materials according to the demands of the PAI curriculum to help students and make it easier for teachers to carry out learning. Meanwhile, its function is to increase the teacher's collection of knowledge and facilitate the learning carried out. The aim of PAI learning resources is to provide opportunities for students to

¹²Ummi Nadrah Nasution, Siti Qomariah, and Siti Halimah, 'Analysis and Design of Development of PAI Teaching Materials and Learning Resources', *El-Mujtama: Journal of Community Service* 4, no. 5 (2 September 2024): h. 2284-2286, <https://doi.org/10.47467/elmujtama.v4i5.3307>.

develop further, not focus on traditional learning, and strengthen their learning more. Meanwhile, its function is to increase learning productivity, provide convenience in learning, and provide a wider range of learning resources.

Islamic Education in the Digital Era

Islamic religious education aims to instill Islamic values and teachings, form good morals, and guide students in practicing Islamic worship and ethics in everyday life. The main goal is to form individuals who believe, have noble character, and understand Islamic teachings. Islamic religious education also aims to build a strong religious identity and equip students with a deep understanding of the basic principles of Islam.¹³

Digital education, as a learning concept, utilizes multimedia media such as computers, smartphones, video, audio and visuals for teaching. According to Kristiawan et al (2019), the world of education does not only focus on one type of technology, but rather many different types of technology that are used according to learning needs. Learning design development involves software and hardware such as audio-visual tools and electronic media, making education more efficient.

Digital education should strengthen the school's internet network before expanding the internet network to reduce costs and enjoy fast internet access at low costs. Collaboration with sponsors can help with financing. Digital education requires professional educators, which is the focus of the ICT-based training program from the Indonesian Teachers Association (IGI). Teachers must be internet literate and able to write. Learning now is about the future, with learning concepts that continue to develop following the needs of the times.¹⁴

Islamic religious education in the digital era must be able to overcome new challenges that arise, such as the influence of social media, technology and information which can influence students' thinking patterns and behavior. The importance of the values taught in Islamic education is because these values reflect universal principles that can be applied by all individuals. Through Islamic religious education, students can gain an understanding of the moral and ethical values that are important for developing positive character. Values such as honesty, responsibility, cooperation, patience and tolerance can be applied in students' daily lives. In addition, Islamic religious

¹³Muhammad Imam Khosyini, Asichul In'am, and Moch Yaziidul Khoiri, 'Application of Digital Technology in Increasing the Effectiveness of Learning in Islamic Education', *Sasana: Journal of Islamic Religious Education* 3, no. 1 (14 August 2024): h.138, <https://doi.org/10.56854/sasana.v3i1.380>.

¹⁴Maulida Rizka Yulianti et al., 'Education Management Strategy to Increase the Effectiveness of the Learning Process in the Digital Era', *Journal of Basic Education and Social Humanities* 3, no. 9 (17 June 2024): h. 591-592.

education also helps students understand their life purpose and strengthen their spiritual connection with God.¹⁵

Islamic education in the digital era refers to the process of learning and disseminating Islamic knowledge that utilizes information and communication technology (ICT), such as the internet, mobile devices and other digital platforms. This allows Muslims to access and study religious teachings more widely and easily, either through online learning materials, applications or social media.

Islamic education in the digital era also includes efforts to integrate religious values with technological developments. This aims to ensure that the younger generation not only understands Islamic teachings in depth, but can also use them to face modern-day challenges, such as issues of digital ethics and the wise use of technology. However, on the other hand, there are challenges related to the dissemination of unverified information and the lack of direct guidance in the learning process.

Islamic education in the digital era is the application of technology in the Islamic education process to expand the reach and increase the effectiveness of religious learning, while maintaining religious and ethical values in the digital world.

The existence of Islamic religious education as a subject at school is not only to instill knowledge about Islam, but can be expected to be practiced in everyday life.¹⁶

C. Research Methods

The method used in this research is library research. This research uses a type of library research based on a literature review that searches for and analyzes written sources that are relevant to the problem being researched. The data obtained in this research comes from various sources such as books, articles and trusted sources that can be accessed via the internet which are related to the problems being investigated by researchers.¹⁷ Then, the sources that best suit the research theme are selected. Next, the process of reading and critically analyzing the content of each selected source is carried out to identify the challenges and opportunities faced in Islamic education in the digital

¹⁵Nurhasanah Sipahutar, Rora Rizki Wandini, and Muhammad Suheri, 'The Role of Islamic Religious Education in Building Student Morality in the Digital Era (Study at SMP IT Mutiara Aulia Sei Mencirim)', *Indo-MathEdu Intellectuals Journal* 4, no. 3 (2023): h. 2937.

¹⁶Luthfiatur Rosid, 'Utilization of Digital Literacy in Learning Islamic Religious Education and Character at SMAN 1 Kandanghaur, Indramayu Regency' (bachelorThesis, Jakarta: FITK UIN Syarif Hidayatullah Jakarta, 2022), p.22, <https://repository.uinjkt.ac.id/dspace/handle/123456789/62863>.

¹⁷Tangahu et al., 'Development of Teaching Materials for PAI Subjects in Public Schools Based on Digitalization', p. 189.

era.¹⁸ According to Zed, there are four stages in library study: preparing the necessary tools, preparing a working bibliography, organizing time, and reading and recording research material.¹⁹

The library research method, known as the literature research method or bibliographic research method, is a systematic procedure for collecting, analyzing, and interpreting information available in written sources, such as books, articles, reports, and other documents. The following is the meaning and how the library research method works:

1. Understanding Library Research Methods

The library research method is a systematic way to collect and analyze information contained in written sources to answer research questions or test hypotheses.

2. How Library Research Methods Work

1. Data Collection:

- Source Identification: Search for and identify written sources that are relevant to the research topic.
- Library Use: Using digital and physical libraries to access these resources.
- Search for Information: Search for information that is relevant to the research question or hypothesis to be tested.

2. Data Processing:

- Notes and Summaries: Create notes and summaries of the information found.
- Data Analysis: Analyzing data that has been collected to find relevant patterns, relationships, or conclusions.

3. Data Interpretation:

- Interpretation: Interpreting analysis results to answer research questions or test hypotheses.
- Conclusion: Make conclusions based on the results of the interpretation.

D. Research Results and Discussion
Strategy Development

Strategy development is carried out through a participatory approach involving school administrators, teachers and educational technology experts. A deep understanding of dynamic changes in society, technology and education is required. The guidelines and procedures designed cover aspects of planning, organizing and evaluating technology-based learning. Education management strategies must also

¹⁸Paramansyah et al., 'Development of PAI Teaching Materials at Islamic Higher Education Institutions in the Digital Era', p. 402.

¹⁹Miza Nina Adlini et al., 'Library Study Qualitative Research Methods', *Edumaspul Journal* 6, no. 1 (2022): h. 2.

take into account the needs of students and teachers. Through needs analysis, PAI teachers' digital skill levels, learning preferences and professional development needs can be identified. In addition, parents' active participation in designing educational management strategies is key, by involving them in the decision-making process and supporting the application of technology in religious learning.²⁰

The development of learning strategies in the Islamic Religious Education (PAI) learning process is an approach that aims to increase the effectiveness and relevance of Islamic religious learning for students.

PAI's learning strategy must be able to integrate digital innovation to meet more dynamic and relevant educational needs. One of the main approaches is the use of digital technology, such as e-learning platforms and educational applications, which enable students to access teaching materials online anytime and anywhere. With this technology, learning material can be accessed more flexibly and interactively, supporting independent and personalized learning.²¹

PAI learning strategies in the digital era must also pay attention to security and ethical needs in the use of technology. It is important to ensure that use of digital tools and platforms is done in a safe manner and respects student privacy. Educators should provide clear guidance on the ethical use of technology and promote online safety practices among students.

Finally, ongoing reflection on PAI learning practices is essential to ensure that the strategies implemented remain relevant and effective. By regularly evaluating and adjusting teaching approaches based on student feedback and technological developments, educators can improve the quality of learning and ensuring that students gain maximum benefit from their religious education. This adaptive and responsive approach to change ensures that PAI learning remains relevant and useful amidst changing times.²²

The development of educational institutions is a planned and continuous process to improve the quality of education, including curriculum, facilities, teaching staff and management. Michael Fullan states that educational development is a systematic effort to change educational practices to make them more effective in achieving learning goals. Development strategies can be divided into several types:

1. Curriculum Development: Developing and refining the curriculum to meet student needs and the demands of the times.

²⁰Maisura Maisura et al., 'Education Management Strategy in Improving the Quality of PAI Learning in the Digital Era', *Indo-MathEdu Intellectuals Journal* 4, no. 3 (23 December 2023): h. 2739, <https://doi.org/10.54373/imeij.v4i3.593>.

²¹Hairil Azhar, 'PAI Learning Strategies in the Era of the Industrial Revolution', *Comprehensive* 2, no. 2 (29 June 2024): h. 373.

²²Azhar, h. 374-375.

2. Human Resources Development: Training and professional development for teaching staff and employees
3. Facilities and Technology Development: Providing adequate educational facilities and advanced technology
4. Management and Leadership Development: Effective leadership in designing and implementing development policies
5. Partnership and Network Development: Collaboration between schools and external parties such as parents, communities and industry (Epstein).

Implementing digital strategies in education is important to utilize technology to improve the quality and accessibility of learning. Tony Bates emphasizes the use of information and communication technology (ICT) to support teaching and learning processes, school management, and interactions between students, teachers, and parents. This strategy involves the integration of technology in the curriculum, the use of digital learning platforms, the implementation of project-based and collaborative learning, the personalization of learning through adaptive technology, the development of digital skills for students and teachers, the use of data and analytics to improve the quality of education, the development of digital content, increased parental involvement, and continuous evaluation and improvement.

By implementing digital strategies effectively, educational institutions can create a learning environment that is more innovative, inclusive and adaptive to changing times, as well as preparing students to face the challenges and opportunities in the digital era.²³

Strategy development is the process of planning and designing systematic steps to achieve certain goals or targets in an organization, be it a company, educational institution, or other organization. This process involves analyzing the current situation, determining the goals to be achieved, and creating plans or policies to overcome challenges and take advantage of existing opportunities.

Strategy Development Objectives:

1. Achieving Long-Term Goals: Helps the organization move towards its long-term vision and mission.
2. Improve Performance: With the right strategy, organizations can increase efficiency and productivity.
3. Responding to Environmental Changes: Strategies are also needed to adapt to external changes, such as technological developments, regulations, or market trends.

²³Muhammad Ardiansyah et al., 'Strategy for the Development of Islamic Educational Institutions in the Digital Era at Madrasah Tsanawiyah PAB 1 Helvetia', *Muhammadiyah Kramat Jati Education Science Journal* 5, no. 2 (15 August 2024): h. 4, <https://doi.org/10.55943/jipmukjt.v5i2.223>.

In general, strategy development aims to maximize the organization's potential and capabilities in facing challenges and exploiting existing opportunities to achieve sustainable success.

Teaching Materials in the Era of Digitalization

The change from the analog to digital era has also influenced the paradigm shift in the education system. Information technology and advances in the internet currently bring a variety of teaching materials and media that are able to penetrate various boundaries of space and time. This should be a strong motivating factor for teachers to continue to develop competencies, especially mastery of technology, so that learning in the classroom remains relevant to current world conditions and gives a professional impression to the teachers themselves.

With the development of globalization and information technology, teachers face new challenges and changing roles in education. They need to understand and overcome challenges such as changing learning paradigms, the speed of technological change, limited access, and the need for digital skills development. But this challenge also presents great opportunities. Teachers can use technology to improve efficiency, accessibility, and quality of learning.

In this era of digital education, teachers are expected to be able to create positive innovations for the progress of schools and education. This does not only include infrastructure and curriculum innovation, but also comprehensive innovation through the use of technology in the learning process. Teaching materials are all forms of materials used in carrying out teaching and learning activities. Teaching materials are something used by teachers or students to facilitate the learning process. The form can be in the form of reading books, student workbooks (LKS), or broadcasts. Thus, teaching materials can take the form of many things that are seen as being able to increase students' knowledge and/or experience. The benefits of digital-based PAI teaching materials include:

1. Increasing Interest, digital and interesting teaching materials can increase students' interest and motivation to learn.
2. Learning Effectiveness, use of multimedia and interactive features can improve student understanding and retention.
3. Flexibility, digital teaching materials can be accessed anytime and anywhere by students. Teaching materials play a central role in teaching and learning activities. To support teaching and learning activities, teaching materials are needed that are useful for educators and students, teaching materials that contain all the information, teaching materials that are prepared in detail, and teaching materials that demonstrate complete competence. This material can be written or unwritten. To make learning more interesting, student learning activities require truly innovative material.

The concept of digital-based PAI teaching materials includes: Interactive, digital teaching materials can present material interactively with multimedia elements such as videos, animations and quizzes. Flexible, students can access teaching materials anytime and anywhere using digital devices. Latest concept, content can be easily updated to adapt to current developments. When developing digital-based materials, it must be taken into account that digital materials are individual and cannot be combined with other materials. When designing, designers pay attention to the learning objects that can be accessed by individuals/learners in the components. Digital educational materials are combined in real time with multimedia devices. For example, by displaying two-dimensional or three-dimensional images in Analytical Exposition material, this visual form will make for interesting learning.²⁴

Apart from that, there are several strategies for developing teaching materials in Islamic higher institutions in this digital era with the following mechanisms:

- a. Provide an understanding of the importance of protecting personal data and awareness of the dangers of irresponsible misuse of data.
- b. Teaching manners and ethics in interacting in cyberspace, because the internet is part of the real world and requires the same behavior.
- c. Directs you to look for credible sources of information and avoid the spread of fake news (hoaxes) by teaching the ability to check the truth of information before believing it.
- d. Prioritize the usefulness of using the internet, avoid spending time on things that are less useful, and make students aware of the importance of selectivity in obtaining information.
- e. Encouraging mutual respect and maintaining harmony in the digital world, avoiding cyber bullying and teaching students to deal with differences of opinion wisely and without bullying.²⁵

In learning, teaching material is an aspect that needs to be paid attention to because it influences indicators of success in learning, as well as the learning strategies used by a teacher must be able to understand the students' condition when in class and understand the material that will be given, so that effectiveness in learning can be achieved and students can understand the material more easily.²⁶ Forms of Teaching Materials According to Prastowo, in terms of form, teaching materials can be divided into two types, namely:

²⁴Tangahu et al., 'Development of Teaching Materials for PAI Subjects in Public Schools Based on Digitalization', p. 189-190.

²⁵Paramansyah et al., 'Development of PAI Teaching Materials at Islamic Higher Education Institutions in the Digital Era', p. 403.

²⁶Mahfida Inayati and Mulyadi, 'Steps to Develop PAI (Islamic Religious Education) Teaching Materials', *Thematic: Journal of Basic Education Research* 2, no. 1 (17 August 2023): h. 117, <https://doi.org/10.57251/tem.v2i1.1082>.

1. printed teaching materials, namely a number of materials prepared on paper, which can function for learning purposes or conveying information. Examples: handouts, books, modules, student worksheets, brochures, leaflets, wall charts, photos/drawings, models, or mockups.
2. Listening teaching materials (audio) or audio programs, namely: all systems that use radio signals directly, which can be played or heard by a person or group of people. Examples: cassettes, radio, vinyl records, and compact audio discs.

According to Prastowo, how teaching materials work. Based on how they work, teaching materials can be divided into two types, namely:

1. Non-projected teaching materials. This teaching material is teaching material that does not require a projector device to project the content in it. So, students can immediately use it, such as reading, viewing, observing the teaching material. Examples: photos, diagrams, displays, models, and so on.²⁷
2. Projected teaching materials. Projected teaching material is teaching material that requires a projector so that students can use it and/or study it. Examples: slides, filmstrips, overhead transparencies (OHP), and computer projections.

The role of teaching materials for teachers:

1. Saving teacher time in studying teaching material, students can be assigned to study the topic or material they will study first, so that the teacher does not need to explain in detail.
2. Changing the teacher's role from an instructor to a facilitator. The presence of teaching material in learning activities means that teachers are more likely to facilitate students than to deliver lesson material.
3. Improving the learning process to be more effective and interactive. With teaching materials, learning will be more effective because the teacher has a lot of time to guide students in understanding a learning topic, and also the methods they use are more varied and interactive because the teacher does not tend to lecture.

For Students; Teaching materials for students have a role, namely::

1. Students can learn without the presence/necessity of a teacher.
2. Students can study whenever and wherever they want.
3. Students can learn at their own pace.
4. Students can study in the order they choose. Helps the potential to become an independent learner.²⁸

²⁷Ina Magdalena et al., 'Analysis of Teaching Materials', *Archipelago* 2, no. 2 (2020): h. 316.

²⁸Magdalena et al., h. 318.

Benefits of digital technology in learning

The potential benefits of digital technology in the learning process include:

1. Its use can encourage students' dialogical and emancipatory practices in learning activities and even encourage them to be proactive in learning. E-learning is now an important component of education. By using examples from around the world e-learning enriches the learning experience; extended learning; empowering learning; developing learning theory; emancipatory learning; and community creation
2. Different technologies can improve the quality of the learning process by augmenting and connecting learning activities with learning activities taking place in other classes or other schools or environments, for example, in a geography lesson, two classes in different schools can be connected via the internet to explore cultural differences related to a particular global problem such as pollution or energy supply. Groups can work together to understand not just the problem itself but its impact on society and individuals by talking to people directly and in real terms. Contact in limited situations like this can be done across grade levels via video or even via email, WA, or short messages.
3. Digital technology can attract students' learning interest and offer potentially more interesting alternatives [36]. At the same time it is important to recognize that some students may lack confidence in learning with digital technologies or otherwise use them excessively, so certain steps need to be taken to ensure equality of access.
4. The use of digital technology in the learning process offers immediate feedback for both students and teachers. Feedback in the learning process is very important for teachers to improve the quality of the direction of learning activities, and for students to be able to mediate learning outcomes to improve the way, style and direction of their learning.²⁹

The use of digital technology in Islamic Religious Education (PAI) learning refers to the use of various tools, platforms and applications based on information and communication technology to support the teaching and learning process in PAI subjects. The aim is to make learning more interesting, effective and flexible, as well as making it easier to access Islamic teaching material.

In more detail, the use of digital technology in PAI learning includes the use of:

²⁹Nandang Hidayat and Husnul Khotimah, 'Utilization of Digital Technology in Learning Activities', *Journal of Primary School Teacher Education and Teaching (JPPGuseda)* 2, no. 1 (2019): h.13.

1. E-learning platforms such as Google Classroom or Moodle to deliver materials, assignments and quizzes online.
2. Multimedia such as videos, animations and podcasts to enrich the learning experience and help understand PAI concepts.
3. Digital applications and tools such as applications for memorizing the Koran, prayers, or educational game-based applications to increase students' interest in learning.
4. Digital assessment tools to make it easier for teachers to evaluate student abilities more quickly and efficiently.
5. Online collaboration via social media or discussion platforms to share ideas and learn together in groups.

The main goal is to utilize technology to improve the quality of PAI learning, making it more interactive, fun and relevant to current technological developments.

Digital technology, especially through e-learning, mobile applications and online platforms, provides a number of significant benefits in the context of Islamic religious education. One of the main benefits is the increased accessibility of education for students in various geographic locations. With this technology, students are no longer limited by distance or time to access learning materials. They can study from anywhere, whether at school, home, or even on the go, which is especially advantageous for students who live in remote areas or who have high mobility.

Digital technology also allows for more flexible learning experiences. With e-learning and online platforms, students can learn according to their own rhythm and learning style. Learning materials can be tailored more personally, with content that can be accessed whenever needed. This not only increases student engagement in the learning process, but also helps maximize their individual learning potential.

Interactive learning experiences are also one of the advantages of digital technology in Islamic religious education. Various applications and platforms provide interactive features such as interactive quizzes, simulations, online discussions, and community forums. This not only increases students' motivation to learn, but also deepens their understanding of Islamic religious material in a more interesting and engaging way.

Digital technology allows for better collaboration between students and teachers, as well as between fellow students. Through online platforms, discussions and collaborative projects can be carried out efficiently without space and time limitations. This not only improves students' social skills in working together, but also helps them understand the values of togetherness and solidarity taught in Islamic religious education.

Overall, digital technology has had a significant positive impact in increasing the accessibility and quality of Islamic learning. By providing a more flexible, personalized, interactive and collaborative learning experience, digital technology not only helps prepare students for the challenges of the modern world, but also strengthens the foundation of Islamic values and teachings in their daily lives.³⁰

Challenges and opportunities for education in the digital era

Islamic education in the digital era is faced with complex challenges as well as promising opportunities. Advances in digital technology have changed the way we learn, access information, and interact with the world around us. In this context, it is important to understand the challenges faced in integrating digital technology in Islamic education, as well as the opportunities that can be exploited to improve teaching and understanding of the religion.

One of the main challenges in Islamic education in the digital era is ensuring the authenticity and reliability of content delivered through digital technology. In an era of information that is so fast and abundant, there needs to be strict supervision to prevent the spread of content that is false, inaccurate, or not in accordance with Islamic teachings. Educators need to ensure that the material delivered via digital technology remains consistent with Islamic principles and can be relied upon as a source of accurate and valid information. There are also challenges related to technology accessibility gaps. Some regions may not have adequate access to technological infrastructure, thereby limiting the accessibility of Islamic education through digital platforms. Economic disparities can also affect individuals' ability to utilize digital technology in Islamic education. Efforts must be made to overcome this gap and ensure that Islamic education through digital technology is accessible to all levels of society without exception. However, amidst these challenges, there are great opportunities that can be exploited. Digital technology opens the door to wider and global access to Islamic education. Through online platforms, individuals from various parts of the world can access high-quality Islamic educational resources. This enables the global spread of religious knowledge and increases intercultural understanding and tolerance. With the right approach, Islamic education can reach a wider audience and provide positive benefits for Muslims throughout the world.

The use of digital technology also provides opportunities for the development of more interactive, creative and interesting learning methods in Islamic education. Videos, animations, simulations, and other multimedia content can make learning more interesting and help students understand

³⁰Khosyiyin, In'am, and Khoiiri, 'Application of Digital Technology in Increasing the Effectiveness of Learning in Islamic Education', p.139.

religious concepts better. Live interaction via online platforms also encourages discussion and collaboration between students and educators, strengthening the learning process. Digital technology enables more efficient implementation of evaluation and monitoring in Islamic education. With online platforms, educators can track individual student progress, provide timely feedback, and identify areas for improvement. This helps improve the effectiveness of teaching and learning, as well as providing opportunities for adapting and improving learning content.

There are several theories that are relevant to the challenges and opportunities of Islamic education in the digital era. One of them is digital literacy theory, which states the importance of developing skills and understanding in using digital technology effectively and responsibly. In the context of Islamic education, digital literacy is the key to ensuring the authenticity of content and awareness of internet ethics in accessing religious information.

Islamic education in the digital era faces complex challenges and opportunities. Key challenges include authenticity and reliability of content, quality of education, and accessibility and the digital divide. However, through the judicious use of digital technology, there are opportunities to increase global accessibility, implement interactive and creative learning methods, develop creativity and innovation, and improve evaluation and monitoring. In overcoming this challenge, it is important to implement a gradual guidance mechanism and utilize relevant theories, such as digital literacy, constructivist learning, and curriculum development. In this way, Islamic education can continue to develop and provide positive benefits in this digital era.³¹

The challenge of Islamic religious education for Gen Z is becoming more and more obvious. There is a need for concrete action to be taken. One of the roles of educators is to ensure that Islamic religious education is delivered to students well and that real practice of Islamic religious education is the ultimate goal, which wants someone to understand the teachings of the Islamic religion, with the hope that they will have thinking intelligence (IQ), emotional intelligence (EQ) and spiritual intelligence (SQ) to prepare for life towards success in this world and the hereafter.³²

Challenges in the Islamic religious education learning process include the need to improve teaching methods and the use of educational technology. Islamic teachers must also overcome internal problems such as the need for

³¹Muhammad Fatkhul Hajri, 'Islamic Education in the Digital Era: Challenges and Opportunities in the 21st Century', *AL-MIKRAJ Journal of Islamic Studies and Humanities* (E-ISSN 2745-4584) 4, no. 1 (2 June 2023): h. 38-40, <https://doi.org/10.37680/almikraj.v4i1.3006>.

³²Wahyu Taufiqur Rohman, M. Sugeng Solehudin, and Abdul Khobir, 'Challenges of Islamic Religious Education for Generation Z', *Multidisciplinary Journal Warehouse* 1, no. 6 (2023): h. 207.

greater ability in delivering lessons and utilizing educational technology, as well as being role models for students regarding responsibility, low interest and motivation. The problems include the influence of scientific and technological advances in communication and the impact on the social environment. Islamic Religious Education Teachers face challenges in terms of knowledge competency and curriculum mastery, teaching practices, student differences, and implementation of 21st century learning. Gaps in the learning process between Madrasas can be overcome through developing human resources, equal distribution of teachers, controlling student admissions, and distributing financial aid proportionally.³³

The challenges faced by Islamic religious education are not single and partial. There are a number of challenges or problems that are still complicated and are related to each other. According to Achmadi, the main challenge to national education, including Islamic religious education, is the low quality of education which triggers the low quality of human resources. The low quality of human resources has an impact on the low character of the nation. Other challenges faced by Islamic religious education include ideological challenges, the dualism of the Islamic education system, language, and challenges in learning methods.

The ideological challenge concerns the weak initiative and commitment of some Muslims in linking mastery of knowledge with progress. As a result, enthusiasm for seeking knowledge, especially scientific knowledge, has not become a culture among the majority of Muslims. The reductive and partial understanding of Islam is the trigger for why mastery of knowledge does not receive a primary place. This ideological challenge is so acute that it has an impact on the low and unequal quality of the Muslim generation.

The challenge of the dualism of the Islamic education system is related to policy. Policies regarding (Islamic) education are regulated and managed by relevant agencies and subordinate agencies. In Indonesia, Islamic education is under the jurisdiction and authority of the Ministry of Religion (Kemenag) while general education is under the Ministry of Education and Culture (Kemdikbud). There is also the Ministry of Research, Technology and Higher Education (Kemenristekdikti) which oversees general and religious higher education institutions/universities. The agencies above have the authority to manage their respective educational institutions. The dualism in the management of Islamic education by the Ministry of Religion and the Ministry of Education and Culture still colors the journey of Islamic education, although currently there are efforts to bridge these challenges.

Another challenge that also arises in modern society is the emergence of practices that reduce the function of education. Education is only

³³Dedi Arman, 'Development of Learning Strategies in the Learning Process of Islamic Religious Education', *JOURNAL OF EDUCATIONAL & SOCIAL SCIENCES (SINOVA)* 1, no. 2 (2023): h.111.

standardized on efforts to prepare workers (practitioners) with a materialistic orientation, under the pretext of supporting modern industrialization and meeting the needs for large quantities of technological products. This condition is compounded by the lack or irrelevance of education to the needs of society. The challenge of relevance increasingly makes Islamic education appear to be in a dilemma.³⁴

E. Conclusion

Optimizing the development of Islamic Religious Education teaching materials in the digital era is indeed the key to creating inclusive, interesting and effective learning. By utilizing digital technology, Islamic Religious Education material can be delivered in a more varied manner and reach more students from various backgrounds. This allows for more flexible and interactive learning, which can increase student engagement in the learning process. Through the use of digital media such as applications, interactive videos, and online learning platforms, students can understand the teachings of the Islamic religion in a more enjoyable and accessible way. The implementation of technology-based teaching materials can also help build students' characters who are tolerant and adaptive to change, and encourage them to be better prepared to face global challenges. Thus, developing optimal and inclusive teaching materials is very important to ensure Islamic religious education remains relevant and can provide greater benefits for society. Continuing to encourage innovation in teaching materials is a strategic step in preparing a generation that is more open, intelligent and full of empathy.

³⁴Abdul Aziz and Supratman Zakir, 'Challenges of Learning Islamic Religious Education in Era 4.0', *Indonesian Research Journal on Education* 2, no. 3 (2 June 2022): h. 1073-1074, <https://doi.org/10.31004/irje.v2i3.123>.

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