TECHNOLOGY INTEGRATION IN ISLAMIC RELIGIOUS EDUCATION LEARNING PLANNING: POLICY FRAMEWORK AND ADOPTION CHALLENGES

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Abstract

The purpose of this look at is to determine whether or not the approach for integrating era into Islamic education is a hit and how to get around any limitations that may stand up. This have a look at adopted a descriptive qualitative method. studies that generate descriptive facts from people's written or spoken phrases and perceptible conduct is known as qualitative descriptive research. This studies employed a literary evaluation approach of inquiry. Descriptive analysis turned into used to research the information, looking for tendencies and themes that arose from the substances gathered. The ranges of statistics accumulating, records providing, records condensing, and end-drawing had been used to observe this have a look at. The take a look at's findings suggest that the excellent manner to integrate era into Islamic schooling is by way of enhancing the generation infrastructure, imparting instructors and schooling managers with schooling and expert development possibilities, creating pertinent virtual Islamic content material, and adopting an era-based curriculum method. By way of making technology more broadly to be had, creating generation schooling and certification applications for instructors, diversifying the funding resources for generation integration, and taking a flexible technique to curriculum development and assessment, we can overcome the problems associated with imposing technology integration in Islamic schooling.

Keywords: Technology Integration, Islamic Education, Policy, Challenges, Adoption.

1. INTRODUCTION

The integration of technology in Islamic education has become crucial information in the world context which is marked by the rapid development of information and communication technology (ICT). (Oktavianti Nendra Utami et al., 2023) In an educational environment, technology offers great potential to improve the quality of learning, expand accessibility, and build more interactive and skill-based learning models. However, the challenges and obstacles that exist in integrating technology in the Islamic religious education system need to be identified in depth to maximize its function.

In the global context of Islam, variations in technology accessibility in several regions are one of the factors that hinder the use of technology in Islamic educational institutions. Other factors that may affect the adoption of technology in Islamic educational institutions include infrastructure problems and economic conditions. In addition, the role of technology in renewing the way of learning and teaching religion must be thought deeply so that Islamic values are permanently alive. With the use of *software* and e-learning platforms, learning becomes more practical and flexible. However, keep in mind that the content must be in accordance with Islamic religious values and be of high quality (Rohmah, 2011).

In order for the use of technology not to diminish students' love for Islam, it is important to consider the effects of technology on their religious identity. *E-learning* applications and platforms have changed the way education is delivered and accessed (Chandrawati, 2010). This technology has great potential to improve educational accessibility and provide flexibility to teachers and students. Students can access learning materials, assignments, and exams from anywhere and anytime, without being limited by time or location. This allows students in remote areas or far from educational centers to continue to receive high-quality education.

Based on Ifadah (2019), integrating technology in Islamic education requires appropriate content using Islamic religious values. *E-learning software* and *platforms* must not only deliver academic material, but also must consider moral and ethical aspects that are in line with Islamic teachings. Islamic values must be upheld, content must not result in controversy from the point of view of belief, and content must uphold Islamic principles. subject matter must be thorough, reliable, and relevant to Islam. High-quality content will help students know religious teachings better and improve the quality of learning holistically.

In addition, the COVID-19 pandemic has opened our eyes to the importance of using technology in Islamic education, especially in terms of distance learning (Salsabila et al., 2021). In order to further study the discourse on the use of technology in Islamic religious education, it is important to consider the consequences and challenges that arise during the pandemic. Thus, the integration of technology in Islamic education has great potential to improve the quality of education and its level of accessibility. However, the problems and difficulties must be overcome properly through appropriate policies and active participation from various stakeholders, such as the government, education forums, and citizens. Therefore, incorporating technology into Islamic education has a good prospect in order to achieve the long-term goal of improving the quality of education and keeping Islamic religious values alive in the era of personal computers and the internet.

2. IMPLEMENTATION METHOD

This study uses a qualitative descriptive approach, which means descriptive data in the form of individual written or oral behaviors and words. In this study, a type of literature research is used, which means gathering facts through written sources such as relevant journals and books. Descriptive analysis is used to analyze statistics, look for patterns and themes from the collected material. It is hoped that the results of this study can improve our understanding of how technology functions in Islamic education: policy frameworks and adoption challenges (Sugiyono, 2017). The process of data collection, data presentation, data condensation, and conclusion drawing are all components used to analyze this research. (Miles et al., 2014).

3. RESULTS AND DISCUSSION

a. Basic Concept of Technology Integration in Islamic Religious Education

Information and communication technology (ICT) is used in all aspects of learning and teaching in Islamic education (Siregar & Marpaung, 2020). The purpose of technology implementation is to improve the student learning experience, improve the quality of learning, and help achieve the goals of Islamic education more efficiently. The learning paradigm from conventional learning to technology-based learning is changed by technology integration. In the traditional approach, the learning process is more one-way, with the teacher delivering the material and the student receiving the information. However, by using technology, learning becomes more interactive and collaborative. Students have the ability to access a variety of digital learning resources, participate in online discussions, and interact with learning materials through multimedia media.

Digital learning resources related to Islamic teachings can be accessed through the integration of technology (Francisca et al., 2022). These resources include digital Quran, hadith, tafsir, religious literature, and other research materials. This public access allows students and educators to obtain Islamic information and knowledge quickly and easily. Technology integration includes the use of educational apps and software intended to improve student learning outcomes. Such applications can include simulations, online learning platforms, interactive quizzes, and other tools that can help students better understand and apply Islamic concepts.

By using technology, learning can become more experiential. Simulations, videos, and multimedia can help students get a more real learning experience (Ashoumi, 2019). For example, students can "visit" Islamic historical sites or attend important events in Islamic history through virtual simulations. The content must be

in accordance with Islamic principles and teachings and meet the needs and preferences of students. This type of digital Islamic content can include Islamic ebooks, lecture videos, daily prayer apps, and so on.

In addition, the use of technology allows for different approaches to learning (Purwanto & Dwi Gita, 2023). The concept of technology integration in Islamic education encourages the application of a lifelong learning approach. With technology, teachers can tailor subject matter to students' learning speed and interests. This will help students with different abilities develop their best potential. Constantly updated digital learning resources allow teachers and students to continue to learn and grow. As a result, learning does not stop after leaving school; it continues throughout life.

A key concept in Islamic education is technology integration, which focuses on using technology to improve the quality of learning and provide a learning experience that is more interactive, innovative, and relevant to Islamic values. By implementing this idea, Islamic educational institutions can prepare a generation of Muslims who are of high quality, noble character, and ready to face future challenges in the computer and internet era.

b. **Policy Framework for Technology Integration in Islamic Education**

The policy framework for technology integration in Islamic religious education is a collection of strategic guidelines that aim to provide an outline, objectives, and concrete steps to implement technological integration in Islamic religious education (Nurdin, 2016). Various elements are included in this policy framework, including monitoring and evaluation, curriculum development, teacher training, and technological infrastructure. The following are some of the key points that are often mentioned in the policy framework relating to the integration of technology in Islamic education:

- Vision and Mission of Technology Integration: The policy framework should include a clear vision and mission of the goal of technology integration in Islamic education. These visions can include realizing Islamic education that is high-quality, globally competitive, and responsive to technological advancements.
- Setting Goals and Objectives: The policy framework should set clear and measurable goals and objectives for the integration of technology in Islamic education.
- Technology Infrastructure: The policy framework should define the necessary technology infrastructure needs. This includes fast and stable

internet access, hardware (tablets, computers, and mobile devices), and software (learning platforms and apps). Plans to meet infrastructure needs should be presented in this document taking into account budget and timeframe aspects.

- Development of Technology-Based Curriculum (Nur'ariyani, 2022): Strategies and steps needed to develop technology-based curriculum that is in accordance with Islamic teachings and utilize technology effectively in the learning process must be incorporated into the policy framework. This policy must also consider the use of relevant and quality digital Islamic content.
- Professional Training and Development: Plans to provide professional training and development to teachers and education administrators should be included in the policy framework. The course should cover the pedagogical and technical aspects of the use of technology in school management and learning
- Security and Ethics of Technology Use: In Islamic education, the policy framework must govern the safety and ethics of the use of technology. This includes safeguarding students' personal data, controlling access to content that is in accordance with Islamic teachings, and supervising the use of technology by students and teachers.
- Monitoring and Evaluation: The policy framework should include mechanisms for monitoring and evaluating the implementation of technology integration in Islamic education. This evaluation should involve all stakeholders, including students, teachers, education providers, and parents, to evaluate the successes and challenges faced in the adoption of the technology.

How this policy monitoring and assessment process will be carried out must be defined in this policy framework. Periodic monitoring can help educational institutions overcome challenges and achieve goals if changes or changes in their implementation are needed.

The policy framework on technology integration in Islamic education is an important foundation to direct and implement the process of technology integration in Islamic educational institutions. With a clear and comprehensive policy framework, educational institutions can use available technology to improve the quality of education and shape a competitive generation of Muslims in today's computer and internet age.

c. Challenges of Adopting Technology Integration in Islamic Religious Education

Limitations on Access to Technology Low accessibility of technology is one of the main obstacles in the use of technology in Islamic education. This is especially true in areas that do not have adequate internet networks and supporting

infrastructure (Zebua, 2023). Adequate internet access is often limited in rural or remote areas. Institutions' efforts to use technology in learning can be hampered by slow or even non-existent internet speeds. In these circumstances, it can be difficult for educators and students to access relevant digital learning resources, online learning platforms, and Islamic digital content.

The limitations of technological devices such as computers, tablets, or mobile phones are also a common problem in disadvantaged areas in addition to internet network problems (Zakariyah & Hamid, 2020). Without adequate hardware, students and educators will face challenges in utilizing technology in learning, such as interacting with learning apps or using devices to access digital learning resources. In some places, there are also problems with the availability of stable and sustainable electricity. Without adequate electricity, the use of technological devices is limited, resulting in disruptions or interruptions in the learning process.

Technology accessibility is also associated with uneven distribution of technology across regions (Lestari, 2015). Schools may already have adequate technological infrastructure, but others may not. This leads to digital disparities between more developed and more underdeveloped regions. Students who live in disadvantaged areas may not have the same opportunities to access digital learning resources or participate in technology-based learning as students in areas with better access to technology. This can lead to differences in the quality of learning between students in areas with better access to technology and students in areas without access to technology. The potential of technology to improve learning and teaching can be hindered by limited access. Teachers and students who do not have adequate access to technology may face difficulties in utilizing various learning tools and applications.

In order for a technology-based curriculum to be used effectively, adequate access to technology is necessary. Having adequate access to technology can be an obstacle to implementing a curriculum that incorporates technology in the learning process. Limited access to technology can also hinder the creation of sensible, high-quality digital Islamic content. The availability of adequate technology is needed to develop and disseminate digital Islamic content throughout the region.

According to Akbar (2019), an additional problem is the lack of knowledge and technology skills for teachers and education managers. This can cause the use of technology in learning to be ineffective and reduce its potential benefits. One of the major problems in incorporating technology into Islamic education is the lack of technological knowledge and capabilities among educators and school

administrators. Many teachers and school administrators do not know or even know how to use technology in the learning process. Technology in learning is often not used fully or at all.

Teachers who are not very tech-savvy may face difficulties integrating learning apps or software into their classrooms. They may also not know how to utilize online learning platforms or multimedia media to make lessons more interactive and engaging for students. Additionally, a lack of technical knowledge can make it difficult for teachers to overcome difficulties or technical errors that may occur during the learning process.

Meanwhile, managers of educational institutions who are not tech-savvy may face difficulties in managing and optimizing the use of technology in their institutions. They may not know how to find and use technology that suits the goals and needs of Islamic education. Additionally, they may not understand the potential of technology, which can hinder managers from encouraging the use of technology to improve the quality of education.

Resources and Costs To incorporate technology into Islamic education, it takes a lot of money to buy software and hardware, train staff, and maintain infrastructure. Schools with limited budgets may face constraints due to these costs. To use technology in education, hardware such as computers, laptops, tablets, or mobile devices, as well as relevant, high-quality learning software or applications are required. An educational institution can face a huge cost to purchase such hardware and software licenses, especially if it has to provide the devices to every student and educator.

In addition, a significant budget is needed to enable education managers and teachers to use technology for training and professional development (Rivalina, 2015). They need this training to improve their abilities and skills to use technology in the learning process. Technological infrastructure requires maintenance costs and upgrades once implemented. Software and hardware must be maintained in order to function properly and in accordance with the latest technological advancements. The use of technology in Islamic education also faces major obstacles due to budget constraints. With limited funding, educational institutions may struggle to allocate a sizable budget to invest in technology, especially if there are other priorities to finance.

Technology must be carefully integrated to be in line with the existing Islamic education curriculum. In addition, developing the right evaluation method to measure

the success of technology integration is also a challenge. This includes changing the subject matter using technology while maintaining the fundamentals of the Islamic curriculum. The curriculum must be flexible and adaptable to adapt to technological changes.

The challenge in measuring the success of the application of technology in Islamic education is the development of appropriate evaluation methods. Conventional evaluation methods may not adequately reflect the impact of technology on the learning process. Evaluation should be more than just measuring how much technology is used; It must also measure the real impact of the application of technology in improving the quality of learning, student participation, and learning outcomes.

d. **Strategy for the Implementation of Technology Integration in Islamic Religious Education**

Developing a technology-based curriculum approach is one of the main ways to implement technology integration in Islamic education. The curriculum should incorporate technology as a tool to achieve learning objectives and be incorporated into each subject. According to Nur'ariyani (2022), this method will help create a creative and interesting learning environment for students. The technology-based curriculum strategy is as follows:

• Integration of Technology in Learning: This approach applies technology in learning as a whole. This means that technology is used to support interaction and collaboration between teachers and students as well as between students and teachers.

• Use of Hardware and Software: A technology-based curriculum involves the use of hardware such as computers, laptops, tablets, and mobile devices, as well as relevant learning software or applications, allowing students to access digital educational resources more easily and flexibly.

• Access to Information and Learning Resources: With technology, students have wider and easier access to various information and learning resources from the internet. They can access learning materials, e-textbooks, learning videos, and a variety of other educational content, helping to increase understanding and active participation in learning.

• Web-Based Learning: Technology-based curricula can include web-based learning, which allows students to take classes online or learn independently through e-learning platforms. Web-based learning allows flexibility in the learning process as students can access it anytime and anywhere.

• Development of Creativity and Digital Skills: This method helps students learn digital skills and creativity by using technology. Students can create multimedia presentations, videos, or other creative content as part of a learning assignment.

• Project-Based Learning: Technology can help with a project-based learning approach where students undertake practical projects that require the use of technology.

• Increases Student Engagement: By incorporating technology into the curriculum, students can be more engaged in the classroom. Engaging and interactive technology can increase student interest and make learning more enjoyable.

• Teacher Training and Development: In order for a technology-based curriculum to be used effectively in learning, teachers must be provided with professional training and development. Teachers must be knowledgeable about technology and relevant teaching skills.

• Impact measurement: This method entails measuring how much the application of technology affects learning. To assess the extent to which technology is helping to achieve educational goals, the evaluation must include both quantitative and qualitative elements.

• Implementing an Adaptive Curriculum: Technology-based curriculum must be flexible and responsive to technological developments and educational needs that continue to change in the world of education.

A technology-based curriculum approach is an important method to improve the relevance and quality of education. Students can gain innovative, creative learning and strengthen their digital skills by using appropriate technology. It will also provide them with relevant abilities to face future challenges.

The development of relevant and high-quality Islamic digital content is an important part of the use of technology in Islamic education. The content must be in accordance with Islamic principles and teachings, and must inspire and support the

learning process. The use of multimedia content such as videos, animations, and interactive applications can increase students' interest and understanding of the subject matter (Hartanto, 2016).

e. **Overcoming the Challenges of Technology Integration Adoption in Islamic Religious Education**

Increased Technology Accessibility: To address the problem of limited technological accessibility, efforts are needed to expand internet network coverage and provide adequate technological infrastructure in remote areas (Rostini et al., 2023).

Improving technology accessibility can be done by working with governments, technology companies, and private institutions. It is defined as an effort to ensure that related technologies and services are easily and efficiently accessible to as many people as possible, including those who may have physical or economic limitations (Yani, 2023). The goal is to keep pace with the advantages and opportunities offered by technology and ensure that everyone is digital. There are several ways to improve the accessibility of technology:

• Physical accessibility: ensuring that hardware and software are created with the needs of people with physical limitations in mind. This can include the use of easy-to-reach buttons, responsive touchscreen devices, or software that can be used with tools such as screen reader software.

• Digital inclusion: Providing support and training to people who are not yet familiar with technology, especially in underdeveloped areas or communities. This can include instructions on the use of the internet, computers, and relevant applications.

• Internet Access: Efforts to expand network infrastructure to improve internet access, especially in remote or underdeveloped areas. Providing public WiFi hotspots or providing high-speed internet access at affordable prices are two examples of these initiatives.

• Content accessibility: ensuring that websites, apps, and other platforms are designed with people's different needs in mind. These include easy-to-read fonts, alt text for images, and high-contrast colors to make them easier to read.

• Technical support: Helping users with accessibility issues. A dedicated help center, online instructions, or support through other communication channels can be examples.

- Affordable: Making related technologies and services accessible to everyone, especially for essential technologies such as communication devices and other accessibility.
- Partnerships and collaborations: Working closely with nonprofits, governments, and the private sector to create initiatives that improve broader and sustainable technology accessibility.
- Accessibility testing: Accessibility testing is part of the process of developing new technologies. This makes it possible to find and fix potential issues with accessibility before a product or service is released. Efforts to improve technology accessibility are an important step to ensure inclusion and equality in the ever-evolving digital era. By making technology accessible to everyone, we can expand the positive potential of technology to benefit society as a whole.

Flexible Approach to Curriculum Development and Evaluation: Educational institutions must use a flexible approach to address curriculum and evaluation issues (Wiguna & Tristaningrat, 2022). A flexible approach to curriculum development and evaluation adapts to changes and developments in the world of education and society. The development of evaluation must also show progress and achievements resulting from the use of technology in learning (Ambarwati et al., 2021). There are several methods that can be used to implement a flexible approach to curriculum development and evaluation:

• Responsive to Change: The curriculum and evaluation must be able to adapt to the demands and expectations of society, the world of work, and scientific advancement. This guarantees that students have the knowledge and skills that are appropriate and relevant to the latest changes.

• Participation and Collaboration: The development of a broader curriculum that represents a variety of viewpoints will allow for participation and collaboration from various parties, such as teachers, students, parents, and other stakeholders.

• Teacher Involvement in Development: Teachers must be actively involved in curriculum development as the main actors in the educational process. They understand firsthand the needs of students and can provide valuable insights in the creation of relevant curriculum.

Integrated and Thematic Curriculum: The development of a more integrated and thematic curriculum can be possible with a flexible approach. This allows students to see how different disciplines relate to each other and gain a broader understanding.

- Innovation and Creativity: Flexible curriculum and evaluation methods can allow for creativity and innovation in the learning process. Teachers can find more interesting and successful teaching methods.

- Use of Technology in Learning: A flexible approach allows the use of technology to enhance the student experience and monitor and evaluate their progress.

- Adaptability to Individual Needs: Flexible curriculum and evaluation can help meet the different learning needs of each individual and ensure that students with different levels of abilities and interests develop optimally.

A flexible approach to curriculum development and evaluation recognizes that education is a constantly changing and dynamic process. With the application of this approach, the curriculum and evaluation can become more adaptive, relevant, and provide greater benefits for students and society.

4. CONCLUSION

One of the crucial steps to increase the effectiveness and relevance of education in the digital era is to incorporate technology into Islamic education. However, the difficulties associated with the adoption of current technology must be carefully considered. First and foremost, technological infrastructure must be improved, including fast internet access and adequate hardware, so that teachers and students can easily access digital resources. Professional development and training are also crucial for teachers and school managers so that they can master the use of digital devices, form relevant digital Islamic content, and integrate technology into the curriculum.

In the implementation of this technology, the development of high-quality digital Islamic content must also be the primary focus. The content must prioritize religious values and teach Islamic principles perfectly and in accordance with current educational needs. A technology-based approach can be used to overcome curriculum challenges and improve students' learning experience by using technology as a learning tool.

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