The Effectiveness of Information and Communication Technology in Enhancing Islamic Education Learning in the Contemporary Era

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Abstract: The utilization of Information and Communication Technology (ICT) in learning Islamic Religious Education (PAI) in the contemporary era has become a major highlight in the world of Education. This study aims to determine the extent to which the level of effectiveness of ICT in improving learning PAI in the contemporary era today. This research adopts the method of literature study or literature review to explore this theme. The research steps include topic identification, literature collection, literature selection based on relevance and quality, as well as in-depth analysis to identify key findings, Approaches, Methodologies, and related research results. From the synthesis of the literature, conclusions were drawn regarding the effectiveness of the use of ICT in PAI learning in the contemporary era, with recommendations for subsequent research. The results showed that the integration of ICT in PAI learning provides the potential to increase the effectiveness of learning, enrich the learning experience of students, and expand the scope of Islamic education paradigm.

Keywords: Islamic Education, ICT, Learning, Access.

Abstrak: Pemanfaatan Teknologi Informasi dan Komunikasi (TIK) dalam pembelajaran Pendidikan Agama Islam (PAI) di era kontemporer telah menjadi sorotan utama dalam dunia pendidikan. Penelitian ini bertujuan untuk mengetahui sejauh mana tingkat keefektifan TIK dalam meningkatkan pembelajaran PAI di era kontemporer saat ini. Penelitian ini mengadopsi metode studi kepustakaan atau literatur review untuk mendalami tema ini. Langkah-langkah penelitian mencakup identifikasi topik, pengumpulan literatur, pemilihan literatur berdasarkan relevansi dan kualitas, serta analisis mendalam untuk mengidentifikasi temuan utama, pendekatan, metodologi, dan hasil penelitian terkait. Dari sintesis literatur, kesimpulan ditarik mengenai efektivitas

penggunaan TIK dalam pembelajaran PAI di era kontemporer, dengan rekomendasi untuk penelitian selanjutnya. Hasil penelitian menunjukkan bahwa integrasi TIK dalam pembelajaran PAI memberikan potensi untuk meningkatkan efektivitas pembelajaran, memperkaya pengalaman belajar siswa, dan memperluas ruang lingkup paradigma pendidikan Islam.

Kata Kunci: Pendidikan Agama Islam, TIK, Pembelajaran, Akses

A. Introduction

Information and Communication Technology (ICT) has transformed the educational landscape, including in the learning of Islamic Education. Technology and communication are two inseparable elements in this modern era. Technology has revolutionized the way we interact, learn, and even conduct our daily lives. On the other hand, communication serves as the primary means for exchanging information, ideas, and values. The two complement each other, creating an ecosystem where information can be rapidly disseminated and accessed by many people around the world. The development of technology provides significant opportunities to enhance the effectiveness of religious education, facilitate broader access to religious knowledge sources, and enrich teaching methods. Through the internet, students can easily and quickly access various sources of information, teaching materials, and religious literature. Videos, animations, and other multimedia allow religious material to be presented in a more engaging and interactive manner. Moreover, online learning platforms enable discussions among students and consultations with religious teachers without being limited by time and space.

Alessi and Trollip, as quoted by Sutrisno, highlight many advantages of ICT-based learning. One of them is the more effective use of time, easy access to learning materials, and more affordable costs. The advancement of Information and Communication Technology (ICT) has permeated all aspects of life, including the education sector. The use of ICT is regarded by many as a solution to simplify, increase efficiency, and accelerate the learning process (Paisar, 2021). Furthermore, the use of ICT in education is seen as an alternative to enhance the quality and quantity of learning outcomes. Teachers and students are expected to actively utilize ICT in the learning

process, including the use of available learning resources. The software available in the education world has also advanced significantly. For example, the provision of electronic textbooks allows teachers to manage time and provide exercises and tutorials through electronic platforms. Nevertheless, the role of teachers remains essential in guiding learning, such as selecting the appropriate answers in educational programs. Various learning media utilizing ICT have been developed to support online learning. Platforms like Google Classroom, Edmodo, Zenius, Zoom Meeting, and others serve as tools for teachers to replace face-to-face interactions in the classroom (Khosiyono et al., 2022). Such advanced communication technology becomes an optimal medium for delivering materials, assignments, exams, and even completing final projects. However, the utilization of these platforms still faces several challenges, both in the use of the platform itself and in providing adequate facilities and infrastructure to support its use. Research findings also highlight issues in distance learning programs, such as power outages, poor internet quality, lack of commitment from parents and students, and difficulties faced by students in maintaining consistency with their learning schedules.

Technology serves as a vital tool in developing students' creativity and skills, as well as obtaining up-to-date information for inspiration in the design and creation of craft items as manifestations of their creativity. The use of information and communication technology in learning, particularly in the field of Islamic education, heavily depends on the readiness and ability of teachers to utilize it effectively as a teaching aid. Therefore, every teacher is expected to be prepared to face the challenges of ever-evolving technology and to have the commitment to integrate information and communication technology into learning activities. Some research findings indicate that the effectiveness of learning using technology is superior compared to traditional or conventional learning. Research by Rusman in 2006 showed that learning outcomes using computer-based tutorial and drill-and-practice models were significantly better than those from conventional learning. Wilfrid Laurier's research in 1998 also found that students using the web for learning were able to learn twice as fast as those in traditional classrooms, with 80% of them performing well or very well, and 66% of them not needing printed materials (Harun, 2015).

The use of information technology is expected to foster interactive learning between educators and students, and between students and learning resources in a more communicative manner. Through various learning models offered, it is hoped that a learning interaction will be formed that emphasizes not only the process of utilization but also the search, investigation, or exploration of various learning sources, leading to a more comprehensive and integrated way of thinking. Through this interaction, it is anticipated that there will be an improvement in thinking skills, interaction skills, and other ideal skills (Hasrian Rudi Setiawan, 2021). In relation to this, the author intends to explore in-depth the effectiveness of utilizing information and communication technology in the context of Islamic Education learning. Thus, the author chooses the title "The Effectiveness of Utilizing Information and Communication Technology in Enhancing Islamic Education Learning in the Contemporary Era." This research aims to identify the extent to which information and communication technology can improve the quality and effectiveness of Islamic Education learning in the present era. With this research, it is hoped that the best strategies and methods for utilizing technology will be revealed to have a significant positive impact on Islamic education learning, providing guidance for teachers, educational managers, and policymakers to improve and enhance Islamic education in the future.

B.   Method

This study will adopt a literature review approach to explore the theme "The Effectiveness of Information and Communication Technology (ICT) in Enhancing Islamic Education Learning in the Contemporary Era." This research is conducted using a literature review method. A literature review is a comprehensive overview of research that has been conducted on a specific topic to show readers what is already known about the topic and what is not known, to seek rationales for previously conducted research, or to find ideas for future research (Azizah, 2017). The research steps will begin with the identification of the research topic focusing on the use of ICT in the context of Islamic Education learning. Subsequently, literature will be collected from various sources, including scholarly journals, books, articles, and reputable online sources discussing the theme. The collected literature will be selected based on its relevance and quality, then

analyzed in-depth to identify key findings, approaches, methodologies, and research results related to the topic. During the analysis process, relationships between selected literatures will be explored, and patterns, similarities, differences, and knowledge gaps in existing research will be identified. From the analysis and synthesis of the literature, conclusions will be drawn regarding the effectiveness of using ICT in Islamic Education learning in the contemporary era, and recommendations for future research directions will be proposed to fill knowledge gaps and enhance understanding of the topic.

B.   Results and Discussion

1.   Research Results

Etymologically, the word "technology" comes from the Greek word "technelogia," which consists of two components: "techne," referring to "skill" or "expertise," and "logia," meaning "knowledge" or "science." Thus, technology can be understood as a combination of expertise or skills in applying knowledge to create or produce something useful (Setiawan, 2022). One of the benefits of technology, especially in the educational field, is that it enables broad access to information, interactive learning, global collaboration, personalized learning, increased student engagement, creativity exploration, and more effective evaluation of student progress. Education itself is a systematic and planned process to transfer knowledge, skills, values, and attitudes to individuals so that they can develop optimally in various aspects of life (Mukhid, 2023). More than just academic learning, education also encompasses character formation, social skill development, and preparation to face future life challenges. As the foundation of society and the nation, education plays a crucial role in shaping individuals into productive, creative, and responsible members of society. Through education, values such as tolerance, justice, and progress can be instilled, creating an inclusive and equitable society. Additionally, education is a means to improve the social, economic, and political conditions of a nation by empowering individuals to reach their highest potential and contribute positively to the advancement of the nation and the world.

In utilizing technology in education, several actions can be taken to enhance the effectiveness of learning. First, the development of interactive and easily accessible

online learning platforms for students in various locations can be implemented. Second, using educational software to provide varied and curriculum-aligned educational content can be applied. Third, developing digital learning content such as educational videos and multimedia presentations can help explain complex concepts in an engaging manner. Fourth, training teachers in technology use can enhance their ability to integrate technology into teaching. Fifth, encouraging collaboration among teachers and students in developing learning materials and projects can improve interaction in the teaching and learning process (Salsabila et al., 2020). By effectively implementing these actions, the utilization of technology in education can enrich students' learning experiences and improve the overall quality of learning. The use of information technology, such as computers, television, and videos, has proven to be an effective means in supporting learning activities at various educational levels. The application of information technology in learning is not limited, as it significantly contributes to the teaching and learning process in schools. Technology media not only provides additional learning activities but also opens up opportunities for more interactive, creative, and diverse learning experiences. One of the main contributions of information technology in education is its ability to address individual differences among learners. With access to technology such as computers, learners can learn in ways that suit their individual learning styles. For example, visual learners can utilize videos and animations to understand complex concepts, while auditory learners can use podcasts or audio recordings to enhance their understanding. Therefore, information technology provides flexibility in the learning approach that can be tailored to the needs and preferences of individual learners.

Moreover, the use of information technology can stimulate learners' imagination and creativity in the learning process. With access to various digital resources such as images, videos, and animations, teachers can present learning material in more engaging and captivating ways. This not only makes learning more enjoyable but also enables students to grasp abstract or complex concepts more easily. For instance, using graphic design or animation software can help students visualize challenging mathematics or science concepts in a more concrete and understandable way. Technology media also provides opportunities for learners to explore concepts more deeply. With access to the

internet and various digital resources, students can conduct research and further explore topics they are studying. For example, they can look for tutorial videos, articles, or other sources of information to gain a more comprehensive understanding of a subject matter. Thus, information technology not only facilitates classroom learning but also enables students to learn independently and develop their interests and curiosity about various topics. Of course, the use of information technology in learning also presents its own challenges and considerations. Teachers need to ensure that technology is used effectively and is relevant to the learning objectives, while also considering the needs and characteristics of learners. Additionally, issues of security and privacy must also be taken into account when using information technology in the educational environment.

Islamic Religious Education (PAI) is one area of study that can effectively utilize information technology. As one of the main subjects from elementary school to higher education, PAI plays a crucial role in shaping students' understanding, appreciation, and practice of Islamic teachings (Sulaeman et al., 2020). The definition of PAI encompasses a conscious and planned effort to prepare students to recognize, understand, and believe in as well as practice Islamic teachings from its primary sources, the Quran and Hadith, through various learning activities (Sinaga, 2017). According to Zuhairimi, Islamic Religious Education can be understood as a systematic effort to shape students so that they can live their lives according to Islamic teachings (Musya'Adah, 2020). Zakiah Daradjat states that Islamic religious education is an effort to nurture and care for students so that upon completing their education, they can comprehensively understand what is contained in Islam, internalize the meanings and purposes of these teachings, and practice them in daily life, making Islam a worldview that brings goodness in this world and the hereafter (Restiawan, 2019). The goal of Islamic Religious Education in schools is to awaken and enhance faith through the instillation of knowledge, appreciation, and experiences about Islam to students. This aims to ensure that they continue to develop in faith and devotion and become responsible individuals in their personal, social, and national lives. According to Ramayulis, the general objective of Islamic Religious Education is to increase faith, understanding, appreciation, and practice of Islam among students, so that they become

Muslims who believe and are devout to Allah SWT and possess noble character in all aspects of life (Rizal, 2022).

In this regard, information technology such as computers, televisions, and videos significantly contributes to supporting the learning process of PAI in schools. These media not only serve as learning aids but also open up opportunities for more interactive, creative, and inclusive learning. The use of information technology as a means of independent learning can increase student engagement in PAI. The screening of films or interactive CDs about concepts of Islamic teachings can make learning more engaging and easier for students to understand. For example, showing a documentary film about the life of Prophet Muhammad SAW can help students better understand the historical context of the development of Islam. Information technology can also be used as a learning aid through the utilization of computer software specifically designed for PAI learning. Examples include the use of Computer Assisted Instruction (CAI) or Intelligent Computer Assisted Learning (ICAL) software that can provide interactive exercises about Islamic teachings (Ikmal, 2023). With this software, teachers can present learning materials more dynamically and interactively, making it easier for students to understand concepts of Islamic teachings. Information technology can also serve as a rich source of learning for students to deepen their understanding of Islam. With internet access, students can search for further information on various topics related to Islamic teachings, including history, doctrines, and practices of worship. This opens up opportunities for students to explore concepts independently and gain a deeper understanding of Islamic teachings.

In his book "Educational Technology" published in 2011, Darmawan argues that in the field of education, information technology provides several benefits for teachers and students (Fitri, 2023):

1. As educators who are more receptive and actively involved in maximizing their teaching potential. Information technology allows teachers to access various learning resources, including materials presented in various formats such as text, images, audio, and video. This enables teachers to be more involved in preparing learning materials that suit the needs and interests of students. Furthermore, with

information technology, teachers can keep up with current developments in education and apply more innovative and effective teaching methods.

2. Allowing students to utilize their full potential from a wide range of sources. Information technology expands students' access to information and learning resources. Through the internet, students can seek additional information, explore topics of interest, and learn from diverse sources. This allows students to develop their interests and talents more broadly, as well as enhance creativity and problem-solving skills.

3. Removing barriers of time and space to encourage collaboration between professionals and students. Information technology facilitates collaboration among teachers, students, and education professionals without being limited by time and space. For instance, through online learning platforms or social media, teachers can collaborate in designing curricula, sharing teaching experiences, and exchanging ideas with fellow educators. In addition, students can also collaborate on learning projects with their classmates or even with students from other schools around the world.

4. Distributing research findings and accelerating information development by sharing information. Information technology allows for the rapid and efficient dissemination of information. Teachers and students can access various scientific publications, journals, and educational articles online, enriching their learning process with the latest findings in education. Additionally, information technology also allows education professionals to easily share experiences, best practices, and learning resources through online platforms, discussion forums, or blogs.

The utilization of information technology in Islamic Religious Education can be categorized into three main functions. First, as a means of independent learning, including the screening of films and the use of interactive CDs. Films relevant to PAI material can be selected by teachers as aids in delivering the content. Additionally, interactive CDs allow learners to interact directly with the programs presented, for example in the form of educational games such as "Who Wants to Be a Millionaire." Second, information technology is also used as a learning aid through the use of

computer software such as Computer Assisted Instruction (CAI) and Intelligent Computer Assisted Learning (ICAL). These software programs can be utilized for various purposes, from remedial learning to interactive learning of PAI concepts. Third, information technology serves as a learning source through the internet and all its components (ARIFIN, 2022).

D. Conclusion

Based on the explanation above, it can be concluded that the integration of information technology in education, especially in Islamic Religious Education, significantly enhances the effectiveness and quality of learning. The utilization of various technological tools and resources can create a more engaging and interactive learning environment, allowing students to explore and deepen their understanding of Islamic teachings. Furthermore, it also facilitates collaboration among educators and students, making learning more dynamic and adaptable to the needs of the 21st century. Therefore, maximizing the potential of information technology in education is essential for achieving educational goals and preparing students to face future challenges in a globalized world.

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