The Role of Information Technology in Learning Toward Improving the Quality of Education at MA Al-Mahrusiyah Lirboyo Kediri City

Nashrulloh Ahsan[1*], Nurul Atikoh[2], Achmad Roysul Rohim[3], Aditya Alfandy[4]
[1,2,3,4] Pascasarjana Universitas Islam Tribakti Lirboyo Kediri, Indonesia, 64114
*Corresponding author: [1]sarjanaladuni99@gmail.com, [2]nurulatikoh82@gmail.com,
[3]achmadroysul@gmail.com, [4]adityaalfandy2020@gmail.com

ABSTRACT

Technology is a tool, method, and knowledge that can facilitate human work, in the era of society 5.0 the integration of technology is increasingly advanced to achieve improved quality of life, empowerment, and solve social challenges. Technology in the era of society 5.0 is used to support various aspects of life including education. In the world of education, learning by using technology is one way to attract the attention of students during the process of teaching and learning activites. In addition, the world of education also constantly adapts technological developments with the aim of improving the quality of education. This article aims to find out the role of technology utilization in the learning process of students. The hope is that educators will not hesitate and be able to adapt to the use of technology in the learning process. The research method used is research with a qualitative approach using the type of field research with data collection techniques in the form of interviews, observations, and documentation. The result of this research is the effectiveness of technology utilization in education as a support for student learning to be more creative, innovative, and efficient. Therefore, the presence of educational technology can make it easier to achieve learning goals.

Keywords:
Information Technology, Learning, Education Quality

INTRODUCTION

The definition of information technology (IT) or Information Technology (IT) is the term that is used to describe any technology that assists humans in creating, transforming, storing and disseminating information. IT combines computing and high-speed communications for data, voice and video. Examples of IT are not only limited to personal computers, but also include telephones, TVs, electronic home appliances, and modern handheld devices such as cell phones. Learning is the process of interaction between learners and educators and learning resources in a learning environment. Learning is assistance provided by educators so that the process of acquiring knowledge, mastery, and skills, as well as the formation of attitudes and beliefs in students can occur. It can be concluded, the definition of learning is a process to help students to learn well.

Improving the quality of learning is an effort made to improve the effectiveness and efficiency of the teaching and learning process, as well as improving students' ability to acquire the expected knowledge, skills and attitudes. This involves improving teacher competence, effective classroom management, and the use of better learning strategies. The rise of Information Technology in the 5.0 era has a big impact on humans. In this world, it is no longer foreign to the name Information Technology, it can even be categorized that most humans are dependent on information technology. In their daily lives they carry out activities with technology ranging from studying, working, and even just communicating with other humans through media produced by information technology. The media offers various features that support the continuity of human life. It can also be said, that it has become a human need in this era. Improving the quality of learning also involves improving learning resources, methodologies and strategies used in the teaching and learning process.

Improving the quality of learning is an effort made to improve the effectiveness and efficiency of the teaching and learning process, as well as improving students' ability to acquire the

expected knowledge, skills and attitudes. This involves improving teacher competence, effective classroom management, and the use of better learning strategies. The rise of Information Technology in the 5.0 era has a big impact on humans. In this world, it is no longer foreign to the name Information Technology, it can even be categorized that most humans are dependent on information technology. In their daily lives they carry out activities with technology ranging from studying, working, and even just communicating with other humans through media produced by information technology. The media offers various features that support the continuity of human life. It can also be said, that it has become a human need in this era. Improving the quality of learning also involves improving learning resources, methodologies and strategies used in the teaching and learning process.

In some instances, improving the quality of learning is done through research that focuses on developing more effective learning strategies, such as Lesson Study, as well as through efforts oriented towards improving student abilities, such as the use of short experimental learning models. Educational problems in Madrasah Aliyah (MA) are various problems faced by this Islamic educational institution. Some examples of problems experienced by MA Al-Mahrusiyah Lirboyo include the madrasah experiencing problems of dualism in education management and the gap between theory and practice that can affect the quality of education. The undisciplined learning process is also one of the problems where teachers and students do not comply with established procedures, thus disrupting the quality of teaching and learning. In addition, the lack of interest in learning in the school environment that needs to be considered is the low level of literacy.

METHODS

The type of research is descriptive-qualitative research. Qualitative research is a research procedure that produces descriptive data in the form of written or spoken words from people and observed behavior. Descriptive method is defined as a problem-solving procedure investigated by describing, describing the subject/object of research (a person, institution, society and others) at the present time based on the facts that appear as they are. Based on describing a set of events or current population conditions. Data presentation in descriptive methods generally concerns the variables contained in the study, so that a complete presentation of information about each variable is obtained based on predetermined categories. The data sources of this research were taken from interviews, observations, and documents found at the research location. The analysis procedure in this study has 3 steps, namely, data reduction, data presentation and conclusion drawing (Sulaiman, 2020).

RESULTS AND DISCUSSION
Information Technology

Information technology in education refers to the use of various types of technology, such as hardware, software, and network infrastructure, to improve learning, teaching, and education management processes. It includes various applications and tools used by learners, educators, administrative staff and other related parties in the context of education.(Suyuti et al., 2023)

Hasrah (2019) states that there are several benefits of applying information and communication technology in the learning process, namely: (1) improving learning activities, (2) increasing access to education and learning, (3) creating abstract images of ideas, (4) making learning materials easier to understand, (5) making the appearance of learning materials more attractive, and (6) increasing attractiveness.

Technology in education is expected to assist educators and learners in carrying out learning activities in schools, helping them achieve learning objectives and giving learners the opportunity to increase knowledge. Technology has been created to increase efficiency and effectiveness, and since its birth and development to solve problems faced by humans, technology and problems have become one. Educational technology can also be considered as a product and process in this regard.(Sipayung & Sihotang, 2022).

The world of education must continue to update and adapt technology to improve the quality of education, especially in order to adapt its use in the world of education, especially in the existing learning process. Educational technology can assist in providing training for educators to

work professionally and utilize existing learning facilities to learn more.(Hanifah Salsabila et al., 2023)

Technology helps students work together and find meaning in a context that is easier to understand. Educational technology has many roles in improving the quality of education, such as: providing learning facilities through the process of planning, developing, utilizing, managing, and evaluating learning resources, solving current learning problems and studying them thoroughly by combining various disciplines, and using technology to make work effective and efficient, both as a product and as a process. Educational technology is essential for providing the right platform for modern learning.(Widianto, 2021)

Problematics of Education

Currently, education in Indonesia is facing a number of challenges related to the use of technology. The shift from industrial revolution 4.0 to society 5.0 reflects further evolution in how humans interact with technology and how technology shapes society as a whole. We have seen significant changes including a focus on social solutions, attention to humanity and justice, deeper connectivity, and changes in culture and values. The society 5.0 era encourages deeper integration of technology and human-centeredness to create a society that is more inclusive, sustainable, and attentive to social and individual needs.(Subroto et al., 2023)

Some of the educational problems that can be identified in general related to technology are the digital divide that can cause gaps in the learning process where learners cannot have access to devices or internet connections at all. The problem of gadget addiction especially among children and teenagers due to lack of proper regulation and excessive habits can disrupt the learning process. Lack of teacher training, many teachers do not have adequate training in the use of technology which hinders the potential for effective utilization of technology in the learning process. Lack of quality content and inappropriate use of technology are other technology-related educational problems, as although online educational resources exist, not all are of good quality. Excessive use of technology can also reduce the quality of teacher and learner interaction and can reduce the focus on the actual learning objectives.(Nurillahwaty, 2022).

Educational problems related to the use of technology in the research location are caused by the fact that there are still many students who lack enthusiasm in developing their knowledge in general science. Less utilizing the facilities provided by the school such as rarely bringing mandatory books that have been given and supporting books that have been provided by the madrasah and many students do not pay attention to the material that has been delivered.(Zahara et al., 2023).

Efforts to Improve the Quality of Education at MA Al-Mahrusiyah

The recognition of the importance of information technology in education has been a subject that has received increasing attention in recent years. In the education sector, especially at the Al-Mahrusiyah Madrasah Aliyah (MA) Foundation in Lirboyo, Kediri City, information technology has begun to be integrated into the learning process in the hope of improving the overall quality of education. In this context, we can consider several aspects related to how information technology can play a role in improving the quality of education at MA Al-Mahrusiyah.

The first aspect of the role of technology in improving the quality of education at MA Al-Mahrusiyah is the accessibility of information, namely the integration of technology opens the door to wider accessibility of information for students. With internet access and other digital learning resources, students can access various learning materials such as e-books, videos, and other interactive learning resources that can help deepen students' understanding of certain subjects.(Nirwan Wahyudi Ar et al., 2023).

Interactive learning and collaboration between learners and educators is the second aspect of technology's role in improving the quality of education at MA Al-Mahrusiyah. Information technology allows for more interactive learning methods. For example, the use of computer-based learning software, educational games, and e-learning platforms can help learners actively engage in their learning process. Through online learning platforms, learners can also collaborate with educators and peers outside of class time by organizing online discussions, forums, and collaborative projects that can develop social, collaboration, and problem-solving skills.(Adam, 2023)

The third aspect is making it easier for educators to assess and develop digital skills. Information technology allows for the implementation of a more efficient assessment system where educators can use software to give assignments, exams, and manage learner records more easily. Information technology also helps learners to develop digital skills, which are very important in today's digital era (Nurillahwaty, 2022).

Based on the results of the interviews, there are several approaches that teachers can take to improve the quality of education at MA Al-Mahrusiyah, namely, implementing an independent curriculum that has been provided by the government, developing the curriculum by providing activity programs for students, improving the quality of teachers by providing activity programs to support teacher knowledge, including students in activities outside the madrasah to improve their achievements, presenting expert educational speakers to improve the quality of students and teachers, and providing opportunities for teachers to continue to improve their quality such as including teachers to participate in PPG.

CONCLUSIONS

From the explanation above, it can be concluded that the role of information technology in learning to improve the quality of education at MA Al-Mahrusiyah Lirboyo Kediri City can provide learning effectiveness for schools. This has a positive impact on educators and students, namely improving the quality of education by making it easier for educators in the process of developing digital skills such as the use of Canva applications through computers that can hone students' creative skills in editing, efficiency of learning time, the use of online learning platforms that can access learning materials at any time, can explore digital museums through zoom links provided by educators, the use of big data analysis to help analyze student performance in depth, and can adjust teaching methods to be more effective.

REFERENCE

Adam, A. (2023). Integrasi Media Dan Teknologi Dalam Pembelajaran Pendidikan Agama Islam *[Amanah Ilmu] Iain Ternate*.

Hanifah Salsabila, U., Wardi Yusro, Luthfianing Widowati, Annisa Vidya Kemala, & Siti Mahmudah. (2023). TRANSFORMASI TEKNOLOGI PEMBELAJARAN DALAM PENDIDIKAN ISLAM. *Jurnal Manajemen Pendidikan Islam Al-Idarah*, *8*(01), 7–14. https://doi.org/10.54892/jmpialidarah.v8i01.261

Nirwan Wahyudi Ar, M. Said, N., & Fitra Siagian, H. (2023). Digitalisasi Dakwah Berbasis Kearifan Lokal. *AL-MUTSLA*, *5*(2), 322–344. https://doi.org/10.46870/jstain.v5i2.637

Nurillahwaty, E. (2022). *PERAN TEKNOLOGI DALAM DUNIA PENDIDIKAN*. *1*.

Sipayung, Z., & Sihotang, H. (2022). Peranan Belajar Behaviorisme dalam Hubungannya dengan Teknologi Pendidikan Serta Implikasinya dalam Pembelajaran. *EDUKATIF : JURNAL ILMU PENDIDIKAN*, *4*(5), 7129–7138. https://doi.org/10.31004/edukatif.v4i5.3871

Subroto, D. E., Supriandi, Wirawan, R., & Rukmana, A. Y. (2023). Implementasi Teknologi dalam Pembelajaran di Era Digital: Tantangan dan Peluang bagi Dunia Pendidikan di Indonesia. *Jurnal Pendidikan West Science*, *1*(07), 473–480. https://doi.org/10.58812/jpdws.v1i07.542

Sulaiman Saat, Dan Sitti Mania, Pengantar Metodologi Penelitian, Pustaka Almaida, Cet. 2, Oktober 2020.

Suyuti, S., Ekasari Wahyuningrum, P. M., Jamil, M. A., Nawawi, M. L., Aditia, D., & Ayu Lia Rusmayani, N. G. (2023). Analisis Efektivitas Penggunaan Teknologi dalam Pendidikan Terhadap Peningkatan Hasil Belajar. *Journal on Education*, *6*(1), 1–11. https://doi.org/10.31004/joe.v6i1.2908

Widianto, E. (2021). PEMANFAATAN MEDIA PEMBELAJARAN BERBASIS TEKNOLOGI INFORMASI. *Journal of Education and Teaching*, *2*(2), 213. https://doi.org/10.24014/jete.v2i2.11707

Zahara, S. L., Azkia, Z. U., & Chusni, M. M. (2023). Implementasi Teknologi Artificial Intelligence (AI) dalam Bidang Pendidikan. *Jurnal Penelitian Sains dan Pendidikan (JPSP)*, *3*(1), 15–20. https://doi.org/10.23971/jpsp.v3i1.4022

BIOGRAPHIES OF AUTHORS

	Nashrulloh Ahsan adalah mahasiswa Pascasarjana Universitas Islam Tribakti Lirboyo Kediri yang berasal dari Trenggalek, memiliki keinginan dalam memperdalam perihal penulisan dalam sebuah karya akademik yang berfokus pada pendidikan di era 5.0 yang manifestinya dapat di rasakan oleh berbagai golongan culture. Saya dapat di hubungi melalui email: sarjanaladuni99@gmail.com
	Nurul Atikoh adalah mahasiswi Pascsarjana Universitas Islam Tribakti Lirboyo Kediri yang berasal dari Lampung, memiliki minat dalam sebuah karya penulisan artikel yang berfokus pada pendidikan dan SDGs.. Tertarik untuk terus berkontribusi dan mengembangkan potensi dalam dunia penelitian, pengabdian masyarakat, volunteer, dan conference skala nasional atau internasional. Saya dapat dihubungi melalui email: nurulatikoh82@gmail.com
	Achmad Roysul Rohim adalah mahasiswi Pascsarjana Universitas Islam Tribakti Lirboyo Kediri yang berasal dari Surabaya, memiliki minat dalam sebuah karya penulisan artikel yang berfokus pada Teknologi Informasi. Tertarik untuk terus berkontribusi dan mengembangkan potensi dalam dunia penelitian, pengabdian masyarakat, dan conference skala nasional atau internasional. Saya dapat dihubungi melalui email: achmadroysul@gmail.com
	Aditya Alfandy adalah mahasiswa Pascsarjana Universitas Islam Tribakti Lirboyo Kediri yang berasal dari Blitar memiliki ketertarikan sebuah karya penulisan artikel yang mengarah pada Pendidikan , sehingga bisa ikut andil dalam mengembangkan potensi keilmuan dalam lingkup masyarakat bangsa dan negara di era digitalisasi