

THE IMPLEMENTATION OF MERDEKA CURRICULUM ON IMPROVING THE QUALITY OF LEARNING THROUGH THE UTILIZATION OF TECHNOLOGY MEDIA AT MA MANBAUL ULUM

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Submission Track:

Submission : 04-03-2025

Accept Submission : 02-04-2025

Available Online : 15-04-2025

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Abstract

Merdeka Curriculum was introduced as an alternative strategy to create a more independent learning process. This study aims to analyze the implementation of Merdeka Curriculum in improving the quality of learning. This research uses a qualitative approach, with data obtained in the form of spoken words from various sources, such as school principal, curriculum deputy head, teachers, and students. The methods used in this study include the observation, involvement, and speaking methods. The researcher directly listens to the interactions between students and teachers during the teaching and learning process, as well as conducts interviews with the school principal, curriculum deputy head, teachers, and students, supplemented with recording and note-taking techniques. The collected data was transcribed into written form. Next, the researcher performs data reduction by selecting information relevant to the research objectives. After that, the data was classified based on its type and verified through consultations with the school principal, curriculum

deputy head, teachers, and language experts. The verified data was then coded in a table format to facilitate further analysis. Finally, the researcher interprets the data obtained and draws conclusions. The results of the study show that the implementation of Merdeka Curriculum at MA MU has successfully utilized technology media, such as educational videos, Google Classroom, and educational games. Some key findings from this study include: first, the media used in learning include educational videos, Google Classroom, and educational games. Second, the teaching and learning process becomes more flexible, both in terms of time allocation and learning materials. Third, technology media such as Google Classroom was used to manage learning efficiently, educational videos enrich the learning experience, and educational games make learning more interactive and enjoyable. Fourth, the use of technology makes it easier to understand learning materials and helps students better comprehend the concepts being taught. Additionally, technology also increases student engagement during the teaching and learning process. Therefore, the results of this study show that the utilization of technology media plays a crucial role in supporting the implementation of Merdeka Curriculum at MA MU, with a positive impact on the quality of learning and student involvement.

Keywords: *Implementation of Merdeka Curriculum, Improvement of Learning Quality, Utilization of Technology Media*

Abstrak

Kurikulum Merdeka diperkenalkan sebagai alternatif strategi dalam menciptakan proses pembelajaran yang lebih mandiri di Madrasah Aliyah Manbaul Ulum. Penelitian ini bertujuan untuk menganalisis implementasi Kurikulum Merdeka dalam meningkatkan kualitas pembelajaran melalui pemanfaatan media teknologi di MA Manbaul Ulum. Penelitian ini menggunakan pendekatan kualitatif, dengan data yang diperoleh berupa tuturan kata, yang berasal dari berbagai sumber, seperti kepala sekolah, wakil kepala kurikulum, guru, dan siswa. Metode yang digunakan dalam penelitian ini meliputi metode simak, libat, dan cakap. Peneliti mendengarkan langsung interaksi antara siswa dan guru selama proses belajar mengajar, serta melakukan wawancara dengan kepala sekolah, wakil kepala kurikulum, guru, dan siswa yang dilengkapi dengan teknik rekam dan catat. Data yang terkumpul kemudian ditranskripsi, yakni diubah menjadi tulisan autografis. Selanjutnya, peneliti melakukan reduksi data dengan memilih informasi yang relevan dengan tujuan penelitian. Setelah itu, data diklasifikasikan berdasarkan jenisnya dan diverifikasi melalui konsultasi dengan kepala sekolah, wakil kepala kurikulum, guru, dan ahli bahasa. Data yang telah diverifikasi kemudian diberi kode dalam bentuk tabel untuk memudahkan

analisis lebih lanjut. Terakhir, peneliti melakukan interpretasi terhadap data yang diperoleh dan menarik kesimpulan. Hasil penelitian menunjukkan bahwa implementasi Kurikulum Merdeka di MA Manbaul Ulum telah berhasil memanfaatkan media teknologi, seperti video pembelajaran, Google Classroom, dan game edukasi. Beberapa temuan utama dari penelitian ini; pertama, media yang digunakan dalam pembelajaran mencakup video pembelajaran, Google Classroom, dan game edukasi. Kedua, proses belajar mengajar menjadi lebih fleksibel, baik dari segi alokasi waktu maupun materi pelajaran. Ketiga, media teknologi seperti Google Classroom digunakan untuk mengelola pembelajaran secara efisien, video pembelajaran memperkaya pengalaman belajar, dan game edukasi menjadikan pembelajaran lebih interaktif dan menyenangkan. Keempat, penggunaan teknologi memudahkan pemahaman materi pelajaran dan membantu siswa untuk lebih memahami konsep-konsep yang diajarkan. Selain itu, teknologi juga meningkatkan keaktifan siswa selama proses belajar mengajar. Secara keseluruhan, hasil penelitian ini menunjukkan bahwa pemanfaatan media teknologi berperan penting dalam mendukung implementasi Kurikulum Merdeka di MA Manbaul Ulum, dengan dampak positif terhadap kualitas pembelajaran dan keterlibatan siswa.

Kata kunci: Implementasi kurikulum merdeka, peningkatan kualitas pembelajaran, pemanfaatan media teknologi

A. INTRODUCTION

Education is one of the key pillars in the development of a nation. In Indonesia, education can be understood as an activity aimed at passing on knowledge and values from one generation to the next. This goal is achieved through the creation of an active learning environment, involving both students and educators. To achieve this goal, efforts to improve the quality of education are continuously made through various policies and curriculum innovations. According to Law No. 20 of 2003, the curriculum is a set of plans and arrangements that include objectives, issues, and teaching materials used as a guideline for organizing learning activities to achieve national educational goals. As Zainuri (2023) stated, the curriculum is a plan designed to facilitate the teaching and learning process under the guidance and responsibility of educational institutions.

To improve the quality of education in Indonesia, the Merdeka Curriculum was developed by the Ministry of Education and Culture (Kemendikbud) as an alternative for schools that wish to develop a more creative and innovative educational approach. This curriculum aims to involve students actively without coercion and create a pleasant learning environment. Suryani et al. (2024) state that in the era of globalization and rapid technological advancement, education in Indonesia faces the challenge of producing graduates who are not only academically competent but also

possess 21st-century skills, such as critical thinking, creativity, communication, and collaboration. One of the government's efforts to address this challenge is the implementation of the Merdeka Curriculum, which offers flexibility in the learning process and allows students to learn according to their needs and potential. Improving the quality of education in Indonesia must align with technological developments, which play an important role as facilitators in creating more efficient and effective education.

The Merdeka Curriculum is implemented with a flexible approach that focuses on the needs and potential of individual students. Schools are given the freedom to develop the curriculum based on the context and characteristics of their students, allowing each educational institution to adjust the content and teaching methods to be more relevant to students' needs. In this system, students are encouraged to choose fields of study or subjects that match their interests and talents, which in turn can enhance motivation and active participation in the learning process. Furthermore, the integration of technology in the Merdeka Curriculum teaches students to use media and technology as tools to learn, conduct research, and collaborate. With this approach, it is hoped that the Merdeka Curriculum can create a learning process that is more meaningful, relevant, and aligned with the needs of students in the modern era.

The research conducted by Suryani et al. (2024) shows that the Merdeka Curriculum can be a solution to improve the quality of student learning in Indonesia. Students are expected to determine the level of education and field of study they wish to pursue, and they are more motivated to learn due to having a broader selection that aligns with their interests and talents. This curriculum also allows students to grow with a more open personality, capable of exploring, and developing soft skills to face globalization and technological advancements. This study focuses on the implementation of the Merdeka Curriculum in the context of improving student learning quality. It analyzes how the Merdeka Curriculum is applied in schools and its impact on student learning, with assessments of education quality, motivation, and student engagement. Furthermore, this study explores how the Merdeka Curriculum provides freedom for students to choose their educational path and fields of study based on their interests and talents, as well as its impact on the quality of student learning. This research does not specifically examine the role of technology media. In contrast, the research conducted by the author is more focused on the implementation of the Merdeka Curriculum in enhancing learning quality through the use of technology media that supports the learning process.

The main issue faced in Indonesia is the uneven understanding and skills of teachers in effectively utilizing technology media in teaching. As stated by UNESCO, many young teachers face limitations in the knowledge of the subjects they teach, especially related to the use of artificial intelligence (AI) in teaching. A survey conducted by the Ministry of Education in 2023 showed that only 45% of teachers in Indonesia feel confident in actively using technology in teaching and learning activities. Moreover, students in underdeveloped areas still face limited access to

devices and adequate internet connections, further widening the education gap across regions.

MA Manbaul Ulum Tangsil Wetan, as one of the educational institutions under the Manbaul Ulum Islamic Boarding School Foundation, is located in a very strategic area and is highly committed to creating an integrated learning environment that supports the development of student character. To achieve this goal, MA Manbaul Ulum applies a differentiated approach to the curriculum tailored to the unique needs and characteristics of each student. One of the key aspects of implementing this curriculum is the use of technology media in the learning process. The institution utilizes various digital tools and platforms, such as Google Classroom, to manage learning efficiently, educational videos that enrich students' learning experiences, and educational games that make learning more interactive and enjoyable. By using this technology, MA Manbaul Ulum not only increases student engagement but also creates a more interesting learning experience that is relevant to the times. This is expected to help students develop their potential to the fullest and prepare them to face challenges in the increasingly advanced digital era.

Based on the explanation above, this research is considered necessary for the following reasons. First, to date, there has not been much research specifically focusing on the implementation of the Merdeka Curriculum with an emphasis on the use of technology media. This indicates a gap in the literature that needs to be filled in order to provide a more comprehensive understanding of the topic. Second, MA Manbaul Ulum Tangsil Wetan, as the subject of the study, has unique and relevant characteristics, as the institution has implemented the Merdeka Curriculum and utilized technology media in the learning process. This condition makes it an ideal case for studying how these two elements can support each other in improving the quality of learning. With this background, this research aims to analyze how the implementation of the Merdeka Curriculum at MA Manbaul Ulum can improve the quality of learning through the use of technology media. This research is expected to provide deeper insights into the challenges and opportunities, as well as propose recommendations that can help schools optimize the use of technology in the learning process. The results of this study are expected to not only be beneficial for MA Manbaul Ulum but also serve as a valuable reference for other educational institutions in facing similar challenges in the future.

So far, the researcher has not found any studies entirely similar to this one, although several studies have similarities. For example, Afriansyah et al. (2023) show that the implementation of the Merdeka Curriculum at Madrasah Aliyah Muhammadiyah 2 Kedungkandang Malang has been carried out well and in accordance with the principles of effective evaluation. Evaluations are conducted periodically, involving various relevant parties, and the results are used to improve the curriculum. In addition, Mubonggi et al. (2023) state that with a more open and flexible learning approach, students have greater opportunities to develop their potential and actively participate in the learning process. The research by Dumiyati et al. (2023) focuses on the development of the learning curriculum in Islamic boarding

schools. Meanwhile, the study by Irsyadi et al. (2023) examines the positive and negative aspects of learning implemented through a hybrid learning method. On the other hand, Julhadi et al. (2023) highlight the design of local curricula that integrate culture and Islamic values into subjects, in line with Indonesia's national ideology.

Another study by Agustin (2024) reveals that the use of information and communication technology (ICT) can improve the quality of teaching, student interest, and overall educational outcomes, including in the P5 (Project Strengthening the Profile of Pancasila Students) activities. This shows that 89% of students are satisfied with the opportunities provided by the Merdeka Curriculum to more broadly and openly develop their talents and interests according to the principle of individual differences. Koelsoem (2024) also conducted research showing that educational technology plays a significant role in supporting the implementation of the Merdeka Curriculum and has a positive impact on the practical execution of the Merdeka Belajar concept. The ongoing development of the Merdeka Curriculum facilitates the integration of up-to-date information technology for students. Another study by Muhammad (2024) shows that Arabic language learning at MA Yayasan Ummul Ayman reflects the principles of the Merdeka Belajar Curriculum, as outlined by the Ministry of Education and Culture (Kemendikbud) and the Ministry of Religious Affairs (Kemenag), by involving technology in the learning process and using methods and strategies relevant to 21st-century learning. Based on these studies, there is a need for further research on the implementation of the Merdeka Curriculum, focusing on the use of technology media to improve the quality of learning across different educational institutions.

This study aims to gather more comprehensive data and enrich existing literature. It is seen as an extension of previous research, emphasizing the importance of technology in learning. This is highly relevant given the rapid technological advancements and the need to prepare students for the challenges of the digital era. By combining theory and practice, this research is expected to offer new insights for educators and policymakers in designing a curriculum that is more responsive to students' needs and the times. This study does not solely focus on existing theoretical aspects but also explores direct implementation in the field, providing practical and applicable recommendations. Thus, the findings of this research are expected to assist in developing more effective educational policies that can utilize technology and flexible curriculum approaches to optimally support student potential.

Based on the context of the research above, the researcher formulates the problem as follows: How does the implementation of the Merdeka Curriculum improve the quality of learning through the use of technology media at MA Manbaul Ulum? To answer this research question, an in-depth understanding of the Merdeka Curriculum theory is necessary. According to Zakso (2022), the concept of the Merdeka Curriculum in education focuses on returning the national education system to the essence of the law by providing autonomy or freedom to school principals, teachers, and students to develop their skills. In this regard, teachers are expected to freely innovate in planning teaching materials in a pleasant environment, as well as to

use technology in the learning process to support the achievement of more effective educational goals.

This idea is similarly emphasized by Mubonggi (2024), who states that the implementation of the Merdeka Belajar Curriculum provides greater flexibility in the learning process by giving students more control over their learning, allowing them to choose materials that match their interests. This flexibility enables more personalized and relevant learning, which can increase student motivation and active participation. Furthermore, according to Handayani (2023), the use of educational technology in the Merdeka Curriculum can create a more interactive, dynamic, and relevant learning environment that caters to the diverse needs of students. Technology allows for more engaging learning experiences that align with the development of the times, as well as facilitates more effective and efficient learning as technology continues to evolve. Using these theories, this research aims to explore how the implementation of the Merdeka Curriculum, particularly through the use of technology media, can enhance the quality of learning at MA Manbaul Ulum.

B. RESEARCH METHOD

This study is a qualitative research, where the data collected consists of sentences or utterances. The data sources involve the school principal, curriculum deputy, teachers, and students. The methods used in this study include the *simak* (listening), *libat* (involvement), and *cakap* (speaking) methods. The researcher conducts observations by listening to the utterances of students and teachers during the teaching and learning activities. Additionally, the researcher conducts interviews with the school principal, curriculum deputy, teachers, and students to gather relevant information. Once the data is collected, the researcher transcribes the data, which means converting the utterances obtained from the interviews into written form. Next, the researcher performs data reduction by selecting the data that is appropriate and relevant to the research objectives, making further analysis easier.

After that, the researcher classifies the data based on its type to facilitate further processing and in-depth analysis. The next step is data verification, which is done by consulting with the school principal, curriculum deputy, teachers, and language experts to ensure the accuracy and validity of the data obtained. After verification, the researcher performs data tabulation by organizing the data into tables that make it easier to identify patterns. Each piece of data is given a specific code to facilitate the processing. Finally, the researcher interprets the collected data and draws conclusions based on the analysis conducted. This process aims to produce comprehensive and valid findings related to the implementation of the Merdeka Curriculum and the use of technology media in learning.

C. RESULT & DISCUSSION

This study aims to analyze the implementation of the Merdeka Curriculum in improving the quality of learning through the use of technology media at MA Manbaul Ulum. The research findings indicate that the implementation of the Merdeka

Curriculum at MA Manbaul Ulum has successfully utilized various technology media, such as instructional videos, Google Classroom, and educational games. Some key findings from this research are as follows: First, the media used in the learning process includes instructional videos, Google Classroom, and educational games. Second, the teaching and learning process has become more flexible, both in terms of time allocation and the subjects taught. Third, technology media such as Google Classroom is used to manage learning efficiently, instructional videos enrich the students' learning experience, and educational games make the learning process more interactive and enjoyable. Fourth, the use of technology facilitates the understanding of lesson material, helps students better grasp the concepts being taught, and increases student participation during the teaching and learning process.

Thus, the results of this study show that the use of technology media plays a crucial role in supporting the implementation of the Merdeka Curriculum at MA Manbaul Ulum. The use of technology not only enhances the quality of learning but also strengthens student engagement and motivation in the learning process. In this way, technology contributes to creating a more engaging, relevant, and up-to-date learning experience.

Table A.1 Implementation of Technology Media at MA Manbaul Ulum

Technology-Based Learning Media	Implementation	Utilization	Impact
Learning Video	The utilization of learning videos as teaching media in the educational process to support a more interactive and engaging understanding of the material	Utilizing videos as media in subjects by selecting relevant and appropriate videos that align with the material being taught.	YouTube Learning videos can help students understand the material more deeply, improve focus, and make the learning process more engaging and interactive.

Google Classroom	The utilization of Google Classroom as a platform to deliver teaching materials in a more organized manner and easily accessible to students.	Teachers upload materials in various formats, such as text, presentations, or videos, and provide assignments and assessments digitally to simplify the learning process.	This makes it easier for students to submit assignments digitally, saving time, and allows for quicker and more efficient feedback.
Educational Game	The utilization of educational games, such as Quizizz, in the learning process can increase student engagement, make the material more interesting, and encourage interactive and enjoyable learning.	Teachers select educational games that align with the subject matter being taught, such as math games to practice calculation skills or science games to deepen understanding of scientific concepts.	Educational games can enhance students' understanding and skills, while encouraging them to keep learning. Through gameplay, students can connect actions with thinking, which ultimately motivates them to be more active in the learning process.

Educational Media Technology

Madrasah Aliyah Manbaul Ulum, in implementing the Merdeka Curriculum, focuses on improving the quality of learning through the use of technological media such as learning videos, e-learning platforms (Google Classroom), and interactive applications (Quizizz), with the application of Interactive Digital Learning Media. These media utilize digital technology to enhance the quality of the learning process. Interactive digital learning media are tools or resources designed to incorporate various multimedia elements such as text, images, audio, video, as well as interactive elements like quizzes, simulations, and tasks that students can complete. This approach aims to provide a more engaging, participatory, and effective learning experience.

The use of learning videos is implemented by providing videos from platforms like YouTube. For example, in the History subject, teachers select relevant videos, such as those about the history of the Prophets, for students to watch. This way, students

can understand the material through more dynamic and engaging visuals. Google Classroom is used by teachers to assign and collect student tasks online. This platform enables more efficient learning management, allowing students to access materials, complete assignments, and interact with teachers through digital media.

Educational games are implemented in the classroom by choosing games that align with the subject matter being taught. For example, in Mathematics, teachers select games that help develop calculation skills, or in Science, games are used to explore scientific concepts in an enjoyable way. To support the implementation of these three learning media, technological tools such as projectors, LCDs, and laptops are needed to display learning videos, allowing students to learn in a more interactive and engaging way. Thus, the application of technological media at Madrasah Aliyah Manbaul Ulum not only enhances the quality of learning but also creates a more enjoyable learning experience that aligns with the times, making students more active and engaged in the learning process.

Implementation of the Merdeka Curriculum and Utilization of Technology Media at MA Manbaul Ulum

The research findings obtained by the researcher in the field indicate that the implementation of the Merdeka Curriculum at Madrasah Aliyah Manbaul Ulum has been ongoing for two years. Its implementation in the learning process prioritizes a differentiated approach. The hallmark of this curriculum is its emphasis on differentiation, which is evident through grouping student learning achievements based on their growth phases. Thus, the curriculum at this high school/MA level provides freedom in teaching and learning activities, ranging from time allocation to learning materials, but remains focused on essential content, character development, and student competencies.

As part of the Merdeka Curriculum implementation, this activity is called the Strengthening of the Pancasila Student Profile Project (P5RA). P5RA is a project-based co-curricular activity designed to strengthen efforts to achieve student competencies and character in accordance with the Pancasila Student Profile. This activity emphasizes collaboration and the reinforcement of Pancasila values in learning, allowing students to not only learn theoretically but also apply their knowledge in real-world contexts. Through the P5RA approach, technology is used to support the learning process. Digital platforms are utilized for collaboration, presentations, and sharing information, enabling students to develop their skills in using technology as part of an interactive, project-based learning process. In this way, the Merdeka Curriculum applied at Madrasah Aliyah Manbaul Ulum not only enhances students' knowledge but also hones their collaboration, creativity, and problem-solving skills in contexts that are more relevant and connected to daily life.

This Pancasila-based project begins with the selection of relevant themes, such as local wisdom, democracy, and entrepreneurship. Each class has a different theme, where Class X chooses the theme of local wisdom with activities visiting industries in the odd semester. Meanwhile, Classes X and XI in the 2024/2025 academic year raise

themes of democracy, local wisdom, and entrepreneurship. The theme of democracy is implemented through involvement in OSIM elections, while entrepreneurship is realized through bazaar activities involving food production and an arts performance as part of the project. In this project, students are grouped according to their varied interests and abilities to encourage collaboration and mutual learning. Technology plays a key role in supporting the implementation of the project, one of which is through digital platforms like Google Classroom.

On this platform, students can plan, share projects, upload documents, presentations, and reports of their work. Additionally, creative applications like Canva can be used to design posters or presentations, while students can also create videos using simple editing apps. The implementation of the Merdeka Curriculum with the P5RA approach provides an opportunity to enhance the quality of learning. Through content, process, and product adaptation, educators can offer more personalized and relevant experiences for each student. For example, students can choose project topics based on their interests or use technological tools they are familiar with to complete tasks.

This project involves several key steps: first, the use of digital platforms for interactive learning, such as learning videos, Google Classroom, and educational games; second, teacher training in using technology to support more flexible and creative learning methods; third, the integration of innovative learning media, such as digital teaching aids and online learning resources, to increase student engagement; and fourth, the implementation of technology-based projects that allow students to learn collaboratively and practically. With these steps, it is expected that the quality of learning can significantly improve.

The use of digital platforms positively contributes to enhancing the quality of learning by providing more flexibility in the learning process, allowing students to choose and pursue their interests and talents. In addition, the use of technology in learning helps students better understand the material and increases their engagement during the learning process. Merdeka Belajar also emphasizes a results-based approach, focusing on students' achievements and development in various aspects, not just graduation or academic assessments. This approach encourages the development of critical thinking, creativity, communication, and social skills, which are essential in preparing them for life in the workforce.

The Role of Teachers and Students in the Implementation of Learning

The teacher plays a very important role in determining the quality of teaching that is implemented. Not only as a facilitator who provides sources of knowledge but also as a companion and leader who supports the development of students' abilities. Teachers are required to be able to manage learning effectively, create an engaging and enjoyable atmosphere, and present relevant material that meets the students' needs. As a result, students' motivation will increase, and they will be encouraged to become more independent. To achieve this, teachers need to plan lessons carefully and in detail to provide optimal learning opportunities for students while also

improving their teaching quality. This process requires changes in classroom management, teaching methods, and the application of effective learning strategies. Furthermore, the teacher's attitude and characteristics also play a crucial role in the success of the teaching and learning process. As the manager of the learning process, the teacher functions as a facilitator who strives to create conditions that support the achievement of effective learning. The teacher is responsible for developing lesson material well and enhancing students' abilities to listen to lessons and achieve the educational goals that have been set.

The Utilization of Technology Media in Supporting the Independent Curriculum

Along with the rapid development and dependence on technology, teachers are now made easier in choosing the learning media they use. The most important factor is the teacher's willingness to learn and utilize various available learning platforms and tools. Various engaging learning media can be found through different platforms, enabling teachers to improve the quality of teaching more effectively. In the implementation of the Independent Curriculum, the use of technology such as instructional videos, Google Classroom, and educational games plays a crucial role in increasing the effectiveness and interactivity of student learning. With this technology, students can more easily understand the material, participate actively, and develop independence in learning.

First, the use of instructional videos is one of the most effective methods because it combines visual and audio elements that stimulate students' sight and hearing. This makes videos a very helpful tool in clarifying and visualizing the material being taught. As a result, videos can help students understand the material more deeply, enhance their attention, and make learning more engaging. At Madrasah Aliyah Manbaul Ulum, instructional videos sourced from platforms like YouTube are used to help students understand difficult concepts in an easier and more enjoyable way. Teachers select videos relevant to the material being taught and ask students to watch them before class as part of independent learning.

During face-to-face sessions, the teacher will discuss the content of the video, engage students in discussion, and answer any questions that arise. This method provides clearer visualization than just reading text and allows students to review the material according to their needs. At MA Manbaul Ulum, the use of instructional videos is applied in several subjects, such as History, by selecting videos that align with the material being taught. Before watching the video, the teacher first explains the purpose of the video and what students should focus on to help them concentrate on the key points to be learned. After watching, a discussion session is held to review the material, and the teacher assigns tasks such as summarizing the video. This approach strengthens students' understanding and increases their engagement in learning.

Second, the use of Google Classroom is one of the most effective technological solutions in education. This application, developed by Google, serves as a learning platform that integrates traditional learning methods with digital tools. Google Classroom makes it easier for educators to manage learning materials and assignments, and allows integration with other applications such as Gmail, Google

Drive, and YouTube. This simplifies the teacher's ability to create, share, and manage assignments without the need for paper. Teachers can upload materials in various formats, such as text, presentations, or videos, as well as assign tasks and assessments digitally. Students can access materials anytime and submit assignments more easily. Additionally, the comment and discussion features in Google Classroom allow students to interact more actively with their teacher and classmates, creating a more dynamic learning environment.

Google Classroom is not only used for online learning but can also be applied in face-to-face learning to improve efficiency and interactivity. As implemented at MA Manbaul Ulum, before the class meeting, teachers can upload learning materials in various formats to Google Classroom, so students can access these materials beforehand and be better prepared for class. During the face-to-face session, teachers can focus more on discussions, practice, or problem-solving, while students already have a basic understanding of the material that was studied beforehand. Teachers can also assign tasks through Google Classroom, making it easier for students to submit their work digitally, saving time, and simplifying the feedback process.

However, MA Manbaul Ulum also faces some challenges in implementing Google Classroom, such as the limited technology devices owned by students, such as smartphones or laptops, as well as the limited technology facilities at the school. Despite this, solutions can be found through adjustments. One solution is to provide alternative devices that students can access, such as computers or laptops available at the school. Teachers can set specific times outside of class hours to allow students to access materials and assignments online in computer labs or classrooms equipped with devices. Although Google Classroom offers many benefits in learning, adjustments are still necessary to ensure that all students can engage in the learning process, even if they do not bring smartphones or other digital devices.

Third, the use of educational games in learning can be an interesting and effective method to enhance student motivation and understanding. Educational games are specifically designed to assist students in learning in a fun way, helping to improve their skills and comprehension while encouraging them to keep learning. Through games, students can connect actions with thinking, which strengthens the learning process. At MA Manbaul Ulum, educational games like Quizziz are used as a more engaging evaluation method, which not only tests students' knowledge but also makes learning more interactive and enjoyable.

In its application in class, teachers select educational games that are relevant to the material being taught. For example, math games to practice calculation skills or science games to understand scientific concepts. Before class begins, teachers prepare the necessary tools and technology, such as computers or projectors, and provide a brief tutorial to students on how to play the game. During the lesson, educational games can be used at various stages—as a warm-up to grab students' attention or in the middle and end of the session to review material interactively. Additionally, educational games allow students to work in teams, which enhances their collaboration and social skills. Teachers can also organize challenges or class

competitions, which can motivate students and create a more enjoyable atmosphere. After playing, teachers can hold reflection and discussion sessions to talk about the learning outcomes from the game. In this way, educational games not only become an integral part of fun learning but also support deeper understanding and more active student involvement.

The Impact of Technology Media Utilization on Learning

The utilization of technology media at Madrasah Aliyah Manbaul Ulum has had a significant positive impact on learning. Technology has made it easier to understand the subject matter, allowing students to grasp concepts more effectively and increasing their engagement during the teaching and learning process. Students are not only listening to the teacher's explanation but are also involved in various activities such as observing, discussing, and presenting. This involvement makes learning more engaging and interactive, ultimately reducing boredom among students. The improvement in learning quality has been achieved in various ways, including the application of creative and innovative teaching methods, such as problem-based learning, cooperative learning, and flipped classrooms.

The use of technology media, such as audio-visual aids, the internet, and educational games, also plays an important role in enhancing students' understanding and creating a more cheerful and enjoyable learning atmosphere. In addition, assessments tailored to students' needs, such as quizzes, group assignments, and the use of technology in assessments, enable students to learn according to their abilities. Developing a positive classroom environment by giving praise and recognition to students, as well as fostering good relationships between teachers and students, also contributes to motivation and the quality of learning. Finally, involving students in the learning process by giving them opportunities to ask questions, participate in discussions, and engage in learning activities can increase their activity level and support better understanding. With these steps, the quality of learning at Madrasah Aliyah Manbaul Ulum can continue to improve, creating a more effective and enjoyable learning experience for students.

The enhancement of teacher creativity and innovation plays a very important role in creating an engaging and motivating learning process for students. Teachers are expected to design learning materials that are not only relevant to students' needs but also delivered in an engaging and innovative way. By utilizing various teaching methods, such as games, projects, or technology, teachers can capture students' attention and create a dynamic classroom atmosphere. When students feel engaged and interested in the lesson, their motivation to learn increases. This makes students more enthusiastic, focused, and active during learning. Motivated students tend to put in more effort, which in turn improves their understanding of the material. Therefore, the improvement of teacher creativity directly contributes to increased student motivation and better learning outcomes.

This study identifies several challenges in the implementation of the Independent Curriculum (Kurikulum Merdeka) to enhance the quality of learning

through the use of technology media. MA Manbaul Ulum Tanggal Wetan, as a madrasah under the auspices of a pesantren (Islamic boarding school), faces unique challenges and opportunities in implementing this curriculum. The main challenges faced by teachers include the lack of digital competence, as many teachers do not have sufficient skills in using digital technology to design effective lessons. This is due to the limited training and education related to technology. Furthermore, there is a digital access gap, particularly because this madrasah is located within a pesantren environment that does not allow the use of mobile phones, as well as economic disparities between schools that hinder equitable use of technology in learning.

An inadequate learning system also poses a challenge, especially in developing relevant, engaging, and curriculum-aligned digital content. Creating high-quality content requires time, resources, and specialized skills. Another challenge is assessment and monitoring, which cannot fully be implemented using traditional evaluation methods, as there is a need for more effective ways to measure students' understanding in a digital learning environment. The lack of adequate infrastructure and technology in schools remains a challenge, as many schools still lack stable internet access, hardware, and software that support the use of technology. Finally, aligning with the national curriculum is also a critical consideration to ensure that the use of technology in the Independent Curriculum remains in accordance with national education standards.

As a solution, the researcher suggests strengthening technology infrastructure by allocating resources to improve the technological facilities at schools, as well as providing comprehensive and ongoing teacher training and development. This training program can include hands-on training in the use of learning technology as well as collaborative learning among teachers to share best practices.

This study makes a significant contribution to understanding the implementation of the Independent Curriculum (Kurikulum Merdeka) at MA Manbaul Ulum and how the utilization of technology media can improve the quality of learning. Through exploring the application of the Independent Curriculum, this research provides insights into the flexibility of a curriculum that is based on students' potential. Additionally, the study focuses on the role of technology as a tool to enhance the effectiveness of learning, identifying various types of technology media that can be used, and how technology can create innovative and creative learning methods. By evaluating its impact on the quality of learning, this research contributes to assessing how well the Independent Curriculum and technology can achieve better educational goals.

The implications of this study are significant, especially for educators who are expected to develop skills in using technology to improve a more flexible and student-centered learning process. For students, the use of the Independent Curriculum supported by technology allows them to learn independently according to their interests and talents, while also facilitating access to a broader range of information. Schools can also gain insights into the challenges and opportunities of integrating technology into learning, which in turn improves the quality and efficiency of

educational administration. For education policy, the findings of this study can serve as a basis for refining the implementation of the Independent Curriculum, as well as supporting the development of policies focused on enhancing digital skills for educators and students. Thus, this research provides a foundation for the development of more modern and relevant education policies that align with current developments.

D. CONCLUSION

The Independent Curriculum (Kurikulum Merdeka) emerges as an alternative strategy to give schools the freedom to develop independent learning processes, including at MA Manbaul Ulum. This study analyzes the implementation of the Independent Curriculum to improve the quality of learning through the use of technology media in the madrasah. The use of technology media in learning has had a significant positive impact on students. Technology helps facilitate the understanding of subject matter, allowing students to grasp concepts more effectively. In addition, technology also increases students' engagement during the teaching and learning process, where they are not only listening to the teacher's explanation but are also involved in various activities such as observing and making presentations. This involvement makes learning more engaging and interactive, reducing boredom among students.

The objective of this study is to analyze the implementation of the Independent Curriculum to enhance the quality of learning through the use of technology media at Madrasah Aliyah Manbaul Ulum. The results of the study indicate that the use of technology media, such as Google Classroom for efficient learning management, educational videos that enrich the learning experience, and educational games that make learning more interactive and enjoyable, has had a positive impact. The implementation of the Independent Curriculum allows for more flexible teaching and learning activities, both in terms of time allocation and subject matter. The impact of utilizing technology media on learning is evident, where technology not only facilitates understanding of the material but also increases students' engagement in the learning process. As a recommendation, to support the success of the Independent Curriculum implementation, it is essential to improve the technology infrastructure in schools by allocating sufficient resources. Furthermore, teacher training and competency development are crucial. Comprehensive and ongoing training programs must be provided to enhance teachers' digital skills so they can optimally use technology in the learning process.

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