Learning Transformation at MTSN 3 Deli Serdang Through Digital Models: 21st Century Educational Innovation

Faisal Rahman Dongoran[1], Amiruddin[2]*, Indah Khairany[3]
[1,2,3] *Universitas Muhammadiyah Sumatera Utara, Indonesia*
Corresponding Author : ✉ amiruddin.spdi@umsu.ac.id

ARTICLE INFO	ABSTRACT
	This article explores significant changes in the teaching methods at Madrasah Tsanawiyah Negeri 3 Deli Serdang through the implementation of a digital-based learning model as an innovative step in 21st-century education. The primary objective of this research is to analyze the positive impact of the digital model on the learning process and academic achievements of students. With a focus on enhancing student engagement, accessibility to learning resources, and fostering creativity, teachers at MTsN 3 Deli Serdang utilize technology to deliver interactive and engaging learning materials. The research findings indicate a substantial improvement in student participation, learning quality, and academic performance, providing compelling evidence of the effectiveness of implementing digital-based learning models in this educational institution. Despite facing some technical challenges and the need for teacher training, this transformation paves the way for a more inclusive education system that aligns with the evolving demands of the times.
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INTRODUCTION

Education is the main foundation in forming students' character and abilities to face the challenges of the modern era. (Dianty, 2023) In this context, the application of technology in the world of education is the key to welcoming a future full of innovation. Madrasah Tsanawiyah Negeri 3 (MTsN 3) Deli Serdang, as one of the secondary education institutions in Indonesia, has made a significant leap by incorporate digital-based learning models into the education system. This transformation emerged as a response to the dynamics of rapid development of information technology.

The digital learning model, as the main focus in this article, is the main instrument in modernizing the learning process. MTsN 3 Deli Serdang views it as an important innovation to optimize the potential of 21st century education.

By understanding the urgency of this change, this article will discuss the objectives of implementing the digital model, the practical steps taken in its implementation, as well as the concrete results that have been achieved in the context of this institution (Pratasik, 2022).

Through this research, it is hoped that concrete evidence can be found about the positive impacts and challenges faced in this transformation process. Furthermore, this article seeks to contribute to the global understanding of how to effectively integrate technology in the educational sphere, with the hope that these findings can provide inspiration and guidance for other educational institutions intending to adopt a similar approach. The transformation at MTsN 3 Deli Serdang is not only a local story, but also a relevant example in the ever-changing global education context.

The transformation of education at MTsN 3 Deli Serdang towards a digital-based learning model cannot be separated from the background of the problems faced in the local education context. Along with the rapid development of technology, especially in the education domain, schools and teachers are faced with demands to integrate technological innovations into the learning process. This background raises questions regarding effectiveness, implementation challenges, and concrete benefits that can be obtained through implementing digital learning models at MTsN 3 Deli Serdang.

In addition, several contextual considerations that need to be addressed include the accessibility of digital resources, the level of digital literacy among students and teaching staff, as well as support from the school and parents. This background provides a clearer picture of the urgency and relevance of these changes, motivating research to better understand the complex dynamics behind the adoption of digital-based learning models in these post-secondary institutions. (Rahim, 2021).

Classic problems such as the digital divide and challenges in overcoming resistance to change are also crucial points that need to be addressed. In this context, this research will try to explore a deeper understanding of how MTsN 3 Deli Serdang overcomes the background of this problem and to what extent

This change is able to overcome these challenges. By understanding the background of this problem, it is hoped that this research can make a substantial contribution to the literature and practice of education in Indonesia, especially in looking at the increasingly profound transformation of education in this digital era.

RESEARCH METHODE

This research applies the case study method with a focus on learning transformation at MTsN 3 Deli Serdang through a digital-based learning model. Case studies were chosen because they provide an appropriate framework for investigating complex phenomena in real and in-depth contexts, allowing researchers to understand the process of educational transformation holistically.

First of all, data collection was carried out through direct observation of the learning process involving digital models in MTsN 3 Deli Serdang classes. These observations involve monitoring interactions between teachers and students, students' responses to digital materials, and the effectiveness of the use of technology in supporting learning.

Next, in-depth interviews were conducted with teachers, students and school staff to obtain a more personal and in-depth perspective on their experiences with the implementation of digital learning models. This interview aims to explore their perceptions of change, the obstacles they may face, and the perceived benefits in this transformation process.

Document analysis is also an integral part of this research method. The documents analyzed include learning plans, student progress records, and evaluation reports that can provide insight into the impact of implementing digital-based learning models on academic achievement.

By combining data from these various sources, this research aims to provide a comprehensive picture of the effectiveness, behavioral changes, and changes in academic achievement that can be attributed to the digital-based learning transformation at MTsN 3 Deli Serdang. Through this method, it is hoped that this research can provide in-depth and applicable insights for the development of education in this digital era.

RESULT AND DISCUSSION

Increased Student Participation and Engagement

The implementation of a digital-based learning model at MTsN 3 Deli Serdang significantly increases student participation and involvement in the learning process. The application of technology in the classroom gives students access to a variety of engaging learning resources, including interactive multimedia, simulations, and relevant educational content. By utilizing this diversity of learning tools, students become more active in exploring lesson concepts, build intrinsic motivation to learn, and participate in class discussions enthusiastically.

Increasing student participation and involvement is an important aspect in digital-based educational transformation. Through this model, students not only become passive consumers of information, but also play an active role in the learning process. Interactive and responsive learning models can create an environment where every student feels recognized and valued. (Heriyanto, 2024) Teachers can also utilize online platforms to increase collaboration between students, promote discussion, and build social skills and critical thinking abilities. Therefore, the observed increase in student participation and engagement can be considered an indicator of the success of implementing the digital-based learning model at MTsN 3 Deli Serdang. Thus, the application of technology in learning is able to create a more interesting and powerful learning experience, in line with the demands of 21st century education which emphasizes active participation and student involvement (Fauzi, 2022).

Increasing student participation and involvement through digital-based learning models at MTsN 3 Deli Serdang opens the door to more personalized and adaptive learning. This model provides opportunities for students to learn at their own pace and learning style, by presenting material in an interactive and interesting manner. The presence of gamification elements and various learning aids can increase students' motivation to be actively involved in every stage of learning.

Apart from that, the application of technology also allows the creation of an inclusive learning space, where students with different learning styles can be empowered. With digital learning models, teachers can modify their approaches to suit individual student needs, provide additional support to those who need it, and challenge faster-growing students. This creates a learning atmosphere that is responsive to students' diverse needs, supports their academic achievement, and creates a foundation for holistic personal development.

However, it needs to be acknowledged that there are challenges in achieving increased student participation and engagement. Factors such as unequal access to technology and digital literacy, as well as school policies that allow the use of digital devices, can influence the extent to which students are optimally engaged. (Putra, 2022) Therefore, it is important for MTsN 3 Deli Serdang to continue to evaluate and overcome these obstacles so that the benefits of digital-based learning models can be equitable and sustainable.

Overall, increasing student participation and involvement through digital-based learning models at MTsN 3 Deli Serdang not only creates a more interesting learning experience, but also stimulates students' potential to become lifelong learners. By continuing to optimize the application of this

model, schools can make a positive contribution to the formation of a generation that is ready to face the demands of an increasingly digital and complex world.

Improving the Quality of Learning

The implementation of a digital-based learning model at MTsN 3 Deli Serdang significantly improves the quality of learning. The adoption of technology in the teaching process gives teachers easier access to varied and relevant learning resources. Learning materials can be presented with a more dynamic approach, including interactive elements such as multimedia, simulations and visual content. This not only arouses students' interest, but also supports a deeper understanding of lesson concepts.

Improving the quality of learning is at the core of the change towards a digital-based learning model at MTsN 3 Deli Serdang. This model gives teachers the flexibility to adapt their teaching methods according to student needs, ensuring that each learning session creates a memorable and meaningful experience. The diversity of digital learning resources also provides the possibility of customizing learning based on students' level of understanding, helping those who need additional help and challenging faster-growing students (Tanwir, 2023).

Positive effects are seen in increasing students' learning motivation and their active participation in the learning process. Teachers can more easily monitor individual progress, provide immediate feedback, and design learning activities tailored to student needs. In other words, the adoption of a digital learning model at MTsN 3 Deli Serdang creates a more inclusive and supportive learning environment development of diverse learning styles, and ensuring that each student can reach their maximum potential.

However, it should be remembered that improving the quality of learning is also accompanied by additional responsibilities for teachers in understanding and managing technology. Continuous training and support for teaching staff is key to ensuring that the use of technology can be integrated effectively in every learning session. Therefore, the discussion regarding learning quality does not only cover curricular aspects, but also aspects of teacher professionalism in facing changes in learning paradigms. Improving the quality of learning through digital-based models at MTsN 3 Deli Serdang is also reflected in the empowerment of teachers as more dynamic learning facilitators. With digital resources, teachers can access a variety of learning tools that can be tailored to student needs. They can design more engaging curricula, provide more varied materials, and utilize formative evaluations more effectively. (Puspitasari, 2020)

Teachers can also utilize online platforms to collaborate with fellow teachers, share best practices, and continue develop their pedagogical skills.

Apart from that, the application of digital-based learning models provides space for learning innovation. Teachers can create creative and challenging learning experiences, using a variety of evaluation methods that can provide a holistic picture of student progress. This quality improvement is not only limited to academic aspects, but also to the development of 21st century skills such as collaboration, creativity and problem solving skills. (Saadjad, 2021) Therefore, this model encourages the creation of a learning environment that not only pursues academic achievement, but also prepares students to face real world challenges.

However, it is important to continue to evaluate and improve the quality of digital-based learning so that it remains relevant and effective. Student engagement and their feedback should be the basis for further adjustments. Apart from that, there needs to be collaboration between teachers, schools and related parties in designing policies and strategies that support optimal use of technology. By maintaining a focus on improving the quality of learning, MTsN 3 Deli Serdang can continue to be a pioneer in producing a generation that is skilled and ready to face the ever-growing digital era.

Increased Academic Achievement

The implementation of the digital-based learning model at MTsN 3 Deli Serdang has a positive impact on students' academic achievement. The presence of technology in the learning process helps students understand the material better and increases their engagement in learning activities. There was a significant improvement in academic evaluation results, including increased test scores, an increase in average grades, and a reduction in student absenteeism.

The increased academic achievement is clear evidence that the digital-based learning model at MTsN 3 Deli Serdang makes a positive contribution to student learning outcomes. Technology adoption helps overcome some of the challenges of traditional learning, such as time and space limitations, and facilitates access to more diverse and in-depth learning resources. (Munir, 2021) In this way, students can more easily access information, strengthen their understanding, and improve their academic skills.

Increased academic achievement can also be attributed to the implementation of personalized learning methods. Digital-based models allow teachers to adapt learning approaches according to each student's needs and level of understanding. This creates a responsive learning environment and

supports instructional differentiation, ensuring that each student can develop to his or her full potential (Kembang, 2020).

However, it needs to be acknowledged that other factors, such as support from parents and the learning atmosphere at home, can also influence student academic achievement. Therefore, a holistic approach involving all stakeholders, including schools, teachers, students and parents, is necessary to maintain and enhance this positive academic achievement. By continuing to optimize digital-based learning models, MTsN 3 Deli Serdang can make a significant contribution to the quality of education and academic achievement of its students.

The observed increase in academic achievement can also be attributed to technology's role in providing more rapid and measurable feedback to students. Through digital platforms, teachers can provide live evaluations, highlighting students' strengths and areas of improvement more effectively. By getting regular feedback, students can identify and overcome their difficulties more efficiently, helping them to continue improving and improving their academic achievement (Lubis, 2020).

In addition, digital-based learning models allow for continuous access to learning resources, both inside and outside the classroom. Students can repeat material, explore additional topics, and study independently as appropriate their needs. This not only gives students the flexibility to study at the time that is most effective for them, but also allows for a deeper mastery of the course material.

However, it should be noted that the successful implementation of this model also depends on adequate technological infrastructure and resource availability. Therefore, efforts to ensure equitable access and adequate technical support for all students and teachers are essential.

Overall, the increase in academic achievement seen at MTsN 3 Deli Serdang shows that adopting digital-based learning models can be an effective strategy for improving the quality of education. By continuing to improve and develop this initiative, schools can play a key role in producing a generation that has skills and knowledge relevant to the demands of an ever-evolving society.

Challenges and Opportunities in Implementing Digital Learning Models

During the process of implementing the digital-based learning model at MTsN 3 Deli Serdang, several significant challenges emerged. Key challenges include the availability of adequate technological infrastructure, continuous teacher training, and change management among staff and students. However, through joint efforts and commitment from the school, a number of

opportunities were identified, such as increasing the accessibility of learning resources and developing students' digital skills.

One of the fundamental challenges is the availability of adequate technological infrastructure throughout schools. Investment in hardware and software that supports digital-based learning is required. Limited access to devices and internet connectivity can create a digital divide among students, which requires special attention in creating an equitable and inclusive learning environment (Samsuri, 2021).

Teacher training is also a critical factor. Although important, implementing digital learning models requires adaptation and new understanding of technology that not all teachers may have. Effective training can help overcome uncertainty and improve digital teaching skills. Teachers who feel confident in using technology tend to be more successful in using it effectively in learning.

Change management is also important in facing challenges. The change process not only includes technical aspects, but also influences organizational culture and individual attitudes. Effective communication, active involvement of staff and students, and a deep understanding of the expected benefits of these changes can help overcome resistance and create a supportive environment (Erni, 2020).

However, amidst these challenges, important opportunities also emerge. Implementation of digital learning models provides opportunities to increase the accessibility of learning resources. Students can access materials anytime and anywhere, enabling independent learning and adaptation to individual needs.

Developing students' digital skills is also a significant opportunity. By engaging in technology-based learning, students can develop critical skills to face an increasingly digital world. The technological understanding and digital literacy gained can provide a competitive advantage in the future. (Meilani, 2022)

In order to optimize opportunities and overcome these challenges, MTsN 3 Deli Serdang needs to continue to develop holistic and sustainable strategies. A deep understanding of the dynamics of implementing digital learning models will help schools to maximize the positive impact and minimize obstacles that may arise

CONCLUSION

From research conducted on the implementation of digital-based learning models at MTsN 3 Deli Serdang, several significant conclusions can be drawn.

The transformation of education through the application of technology has had a positive impact that can be seen in several key aspects, including increasing student participation and engagement, improving the quality of learning, and increasing academic achievement.

Digital-based learning models provide opportunities for students to learn more actively, independently, and responsive to individual learning styles. By utilizing diverse and interactive learning resources, students can develop 21st century skills while increasing their academic achievement. The improvement in learning quality observed through this method creates a learning environment that is more inclusive, responsive, and relevant to today's demands.

However, this research also identified several challenges, such as the availability of adequate technological infrastructure, the need for ongoing teacher training, and complex change management. Overcoming these challenges requires commitment and collaboration between all stakeholders, including schools, teachers, students and parents.

Overall, the implementation of a digital-based learning model at MTsN 3 Deli Serdang can be considered a positive step towards education that is more adaptive and relevant to the times. Active involvement in this digital revolution not only improves the quality of education, but also helps students to develop the skills needed to face a future full of challenges and change. By continuing to optimize the use of technology in learning, MTsN 3 Deli Serdang has the potential to become an inspiring model for other educational institutions who wish to undertake a similar journey.

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