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The Role of Digital Learning Media in Improving the Quality of Geography Learning: A Review

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Abstract
This research discusses the role of digital learning media in improving the quality of geography learning through a comprehensive review of related issues. Digital learning media has brought significant changes in education, particularly in the context of geography, by providing interactive, visualization and personalization tools that enrich students' learning experience. This research uses a descriptive qualitative approach. The type of research used is a literature study which is research that has been done before by collecting journal books, magazines, and scientific papers that are interrelated with the problems and research objectives. The results of the review show that the utilization of digital learning media can strengthen the understanding of geography concepts, encourage more active student involvement, and assist in the development of problem-solving skills. However, challenges such as technology accessibility and teacher training still need to be addressed. Thus, this study concludes that the use of digital learning media has great potential in advancing geography education, but needs to be accompanied by appropriate strategies and support to optimize its benefits in improving the quality of geography learning in the future

Abstrak
Penelitian ini membahas peran media pembelajaran digital dalam meningkatkan kualitas pembelajaran geografi melalui tinjauan komprehensif terhadap isu-isu terkait. Media pembelajaran digital telah membawa perubahan yang signifikan dalam dunia pendidikan, khususnya dalam konteks geografi, dengan menyediakan sarana interaktif, visualisasi dan personalisasi yang memperkaya pengalaman belajar siswa. Penelitian ini menggunakan pendekatan kualitatif deskriptif. Jenis penelitian yang digunakan adalah studi literatur yaitu penelitian yang sudah pernah dilakukan sebelumnya dengan mengumpulkan buku-buku jurnal, majalah, dan karya tulis ilmiah yang saling berkaitan dengan permasalahan dan tujuan penelitian. Hasil kajian menunjukkan bahwa pemanfaatan media pembelajaran digital dapat memperkuat pemahaman konsep geografi, mendorong keterlibatan siswa yang lebih aktif, dan membantu pengembangan keterampilan pemecahan masalah. Namun, tantangan seperti aksesibilitas teknologi dan pelatihan guru masih perlu diatasi. Dengan demikian, penelitian ini menyimpulkan bahwa pemanfaatan media pembelajaran digital memiliki potensi besar dalam memajukan pendidikan geografi, namun perlu dibarengi dengan strategi dan dukungan yang tepat untuk mengoptimalkan manfaatnya dalam meningkatkan kualitas pembelajaran geografi di masa depan.

Kata Kunci : Media Pembelajaran Digital, Pembelajaran Geografi

INTRODUCTION

Education is one of the main pillars of a country's development, and the quality of learning plays a crucial role in determining the success of the education system (Žalėnienė & Pereira, 2021). In the ever-evolving digital age, the role of information and communication technology is becoming increasingly significant in changing the way we learn and teach (van der Schee et al., 2015). One of the fields of study that utilizes the potential of this technology is geography. Geography is a subject that has a close

relationship with the real world, so its learning can be enhanced through the utilization of digital learning media (Manakane et al., 2023).

Technological developments and widespread access to the internet have opened up great opportunities to improve the quality of geography learning (Zwartjes & de Lázaro y Torres, 2019). Various digital media, such as interactive applications, learning videos, simulations and other online resources, can enrich students' learning experience. These technological developments allow students to explore various geographical phenomena in depth, explore geospatial information, and interact with learning content in a more interesting and enjoyable way (Rakuasa & Latue, 2023). In addition, digital learning media also allows for personalized and adaptive learning. Each student has a different level of understanding, and digital media can be adapted to each student's ability level. This allows for more effective and efficient learning, where students can learn according to their own pace and learning style.

However, despite the potential of digital learning media in improving the quality of geography learning, its application has not been evenly distributed across educational institutions (Boca & Saraçlı, 2019). There are a number of challenges that need to be addressed, such as technology accessibility, teacher training, and relevant curricula. Therefore, it is crucial to explore and evaluate the role of digital learning media in improving the quality of geography learning (Chankseliani et al., 2021). In addition, training teachers in the use of digital learning media is also crucial to maximize the potential of these technologies (Tomčíková, 2020). It is also important to integrate digital media into relevant and useful geography curricula.

It is in this context that this research will further explore. By understanding and analyzing the role of digital learning media in geography learning, we can identify the associated benefits, constraints and opportunities (Ardoin & Bowers, 2020). It will also help illustrate the evolutionary journey of geography education in this digital era, as well as provide a basis for educational stakeholders to take more effective steps in utilizing the potential of technology in improving the quality of geography learning (Gustavo & Rakuasa, 2023). Through this deeper understanding of the role of digital learning media, we can move towards a more adaptive, innovative and relevant education system in teaching geography, preparing students for the challenges of a changing world. Based on the description above, this research aims to determine the role of digital learning media in improving the quality of geography learning.

METHODOLOGY

This research uses a descriptive qualitative approach. Qualitative research is a research procedure with descriptive data results in the form of written or spoken words (Hamilton & Finley, 2019). Qualitative research aims to analyze the quality of a study. The type of research used is a literature study which is research that has been done before by collecting journal books, magazines, and scientific papers that are interrelated with the problems and research objectives. Literature study is a data collection technique carried out by conducting a study of books or literature related to the problem being solved

(Roller, 2019). The literature study used is by searching for journal articles on Google Scholar, Scopus, and Google Book related to the title of this research.

RESULT AND DISCUSSION

Digital Learning Media

Digital Learning Media is the use of digital technology in an educational context to facilitate and enhance the learning process. It includes a variety of digital tools and resources designed to help students understand concepts, acquire skills and support teaching. Types of digital learning media include learning videos, interactive software, simulations, online resources, online learning platforms, and more. The main purpose of digital learning media is to provide a more engaging, interactive, and relevant approach to learning, and support the development of students' abilities in various aspects of learning, including concept understanding, problem solving, and critical skills (Lin et al., 2017).

Why is digital learning media important? First, digital media provide flexibility in learning. They allow students to learn anytime and anywhere, overcoming geographical and time barriers. In addition, digital media increase student engagement by providing a more interactive and enjoyable experience. They also enable personalization of learning, allowing students to learn according to their own pace and learning style. Thus, digital learning media is not just a means for information transfer, but also a tool to change the way students learn, encourage interest, and create a more effective and inclusive learning environment.

Improving Understanding of Geography Concepts

Improving the understanding of geography concepts is crucial in the learning process. Geography as a subject requires a deep understanding of various geographical phenomena, such as climate change, landscape formation, population migration, and many more (Suciani et al., 2021). With a good understanding, students can connect various geographic information and understand how these phenomena interact with each other in the real world. Understanding geography concepts also helps students develop spatial thinking skills, which are useful in problem solving, decision making, and understanding their surrounding environment.

One way to improve understanding of geography concepts is through the use of digital learning media. Digital media can provide a clearer and more interactive visualization of geographic phenomena, which makes it easier for students to understand these concepts (Ferawati Po'u et al., 2023). In digital media, students can explore interactive maps, view animations that explain geographic processes, or follow simulations that allow them to participate in virtual experiments. All of these help students understand geography concepts better and more deeply. With a variety of tools and technologies available, the use of digital learning media can help students build a solid foundation in understanding geography and prepare them to think critically about geographic issues in an increasingly complex world.

More Active Student Engagement

More active student engagement is one of the key benefits of using digital learning media (Tuko & Hadi, 2022). In traditional learning environments, students are often passive listeners who only receive information from teachers or reading materials. However, digital learning media allows students to play a more active role in the learning process. They can participate in interactive exercises, simulations, educational games and online discussions that stimulate critical thinking and collaboration.

Through digital media, students can solve problems, make decisions and explore geographical concepts in greater depth. They can design creative projects, explore geographic data through GIS (Geographic Information System) software, and interact with relevant digital resources (Tuko & Hadi, 2022). All of these allow students to actively learn and develop important skills such as problem solving, communication, and creativity. As a result, this more active student engagement not only improves their understanding of geography, but also helps them become lifelong learners who are ready to face the challenges of a changing world.

Self-directed Learning and Problem Solving

Self-directed learning is a learning approach where students become active agents in their own educational process. In the context of geography learning, self-directed learning allows students to take the initiative in exploring geographical topics, identifying resources, and designing their own learning approaches. This often involves selecting materials, planning time, and developing personal learning strategies (Zahrawati et al., 2023). Through self-directed learning, students learn to manage time, self-motivate, and build deep critical thinking skills.

Problem solving is a critical skill taught in geography learning. It involves the ability to identify geographical problems, collect relevant data, analyze information, and seek effective solutions. Through a learning approach that emphasizes problem solving, students learn how to face real-world geographical challenges and contribute to finding useful solutions (Sprenger & Nienaber, 2018). Digital learning media can support this learning by providing case studies, simulations, and problem-based exercises that allow students to hone their problem-solving skills while exploring a variety of relevant geographic issues (Zahrawati B et al., 2023). With the combination of self-directed learning and problem-solving skills, students can become more independent learners, skilled in analyzing geographical issues, and ready to face the complexity of the ever-evolving world of geography.

Implementation Constraints and Challenges

The implementation of digital learning media in geography learning, despite its great potential, is also faced with a number of obstacles and challenges. One of the main obstacles is technology accessibility (van der Schee et al., 2015). Not all students or educational institutions have adequate computer devices or internet access. This creates

a gap in students' ability to access and utilize digital learning media. In addition, issues related to infrastructure and connectivity are also barriers, especially in rural or remote areas. To address these challenges, there needs to be investment in technology infrastructure and policies that support more equitable accessibility.

Another challenge is teacher training. Many teachers may not have sufficient skills or experience in using digital learning media in teaching geography. They need to be provided with adequate training to effectively utilize these technologies, integrate them into the curriculum, and create meaningful learning experiences for students. In addition, there needs to be an effort to develop a geography curriculum that is relevant and in line with technological developments. All these challenges must be overcome for the implementation of digital learning media in geography learning to reach its full potential in improving the quality of geography education (Zwartjes & de Lázaro y Torres, 2019).

Teacher and Student Perceptions

Teachers' and students' perceptions of the use of digital learning media in geography learning may vary (Schultz & DeMers, 2020). Some teachers may see digital media as a useful tool in enriching geography learning with visualizations, simulations and relevant online resources. They may believe that digital learning media can increase student engagement, aid concept understanding, and provide flexibility in the way material is taught. However, there are also teachers who may feel anxious or lack confidence in adopting new technology, and they may perceive it as an additional workload or additional challenges in managing the classroom.

Meanwhile, students' perceptions of the use of digital learning media in geography learning can also vary. Many students may welcome this technology because it presents subject matter in a format that is more engaging, interactive and suits their generation's digital learning style (Walshe, 2017). They may see it as an opportunity for more in-depth and independent exploration. However, some students may face challenges in adapting to digital learning, especially if they do not have equal accessibility to technology at home. Therefore, it is important to pay attention to the diversity in teachers' and students' perceptions and technological skills in the development and implementation of effective digital learning media.

Future Challenges and Opportunities

Future challenges and opportunities in the use of digital learning media in geography learning have a significant impact on the course of education in the modern era (Çifçi & Dikmenli, 2019). One of the main challenges is ensuring accessibility and equity of technology. Although technology is increasingly available, inequality of access is still an issue in many regions, which can result in disparities in students' ability to access digital learning. Wider deployment of internet access and investment in technology infrastructure are key to addressing this challenge.

On the other hand, future opportunities in the use of digital learning media involve continued technological advancements. The development of artificial intelligence (AI)

and data analytics can help create increasingly personalized learning experiences, where learning content and approaches can be tailored to individual needs (Meadows, 2020). In addition, digital learning media can also support lifelong learning approaches, enabling students and adults to continue learning and developing according to their needs in a changing world. With wise planning and continuous innovation, the use of digital learning media in geography learning has great potential to improve the quality of education, prepare future generations with relevant skills, and face increasingly complex global challenges.

CONCLUSIONS

In this study, it can be concluded that the role of digital learning media in improving the quality of geography learning is significant. Digital learning media provides the possibility to enrich students' learning experience through visualization, interactivity, and personalization of learning. This helps students to understand geography concepts better, encourages more active engagement, and supports the development of problem-solving and critical thinking skills. However, the implementation of digital learning media is also faced with a number of challenges, including accessibility of technology and adequate teacher training. Therefore, it is important for educational institutions and stakeholders in education to capitalize on the opportunities that digital technologies offer while overcoming these obstacles in order to achieve the full potential of the role of digital learning media in improving the quality of geography learning.

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