

Innovations In Educational Teaching And Learning In The Digital Era

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ARTICLE INFORMATION	ABSTRACT
Article History: Received, 25-08-2024 Accepted, 09-10-2024 Published, 07-12-2024	<i>This research aims to find out a picture of innovation in educational teaching and learning in the digital era. The research method used is descriptive qualitative. Data collection was carried out through different libraries. The data that was collected was triangulated and reduced to produce conclusions. As human needs become increasingly complex, educational technology is not only about using tools (machines) for learning in the current era of information technology. In educational reform, teacher involvement from planning educational innovation to implementation and evaluation plays a very large role in the success of an educational innovation. Teachers who innovate are able to create a learning environment that motivates students, increases creativity, and stimulates their interest in learning. Apart from that, innovation also helps teachers overcome new challenges that arise in education. Educational innovation is an invention that can be an idea, item, event, method that is observed as something new to the world of education, such as the use of media in the learning process, using smartphones for learning and other media that can help students carry out learning well, media here is an innovation. Teachers as partners in learning must be able to design learning activities so that students obtain more information than the time provided. Through library research, researchers discovered several important aspects regarding teaching and learning in the digital era, namely that learning in the digital era has different characteristics from student learning in the past, the generation in this era are those with digital native characteristics.</i>
Keywords: <i>Innovation; Teaching and Learning; Digital Era</i>	

INTRODUCTION

Technological advances have brought major changes in learning models, encouraging the use of innovative and interactive learning media to increase learning efficiency in facing modern challenges. In the world of education, digitalization will bring very rapid progress, namely the emergence of various learning sources and the spread of mass media, especially the internet and electronic media as sources of knowledge and centers of education. The impact is that teachers/educators are not the only source of knowledge. As a result, students can master

knowledge that has not been mastered by the teacher. Therefore, it is not surprising that in this digital era, the authority of teachers in particular and parents in general in the eyes of students has declined. The internet now has a magnet that is so strong, its existence seems to outweigh the influence of the teacher's presence in the classroom. According to Prensky (2001), today's students can be said to be digital natives. When they are born and start to grow up, they are already familiar with gadgets. So, it is only natural that the world of education (schools) changes with the times.

According to Eric Sheninger (2019) The aim of educational teaching and learning innovation in the digital era is to create quality and effective education, motivate students to love learning, and provide good examples and models in various matters related to the implementation of learning declarations. It becomes easier for teachers to convey learning messages and create a pleasant learning atmosphere. The implication is that students' understanding of the material being taught will increase. Technological advances in learning can ideally be utilized by educators to increase students' potential, not the other way around. The ability to use information technology between millennial students and previous eras is certainly different. So, with the provision of mastery of information technology, it can be used as added value in supporting student learning activities in class.

Teaching and learning innovations in the digital era have changed the way students learn, from traditional teacher-centered methods to more interactive, personalized and technology-based learning. By utilizing e-learning, gamification and broad access to information, students now have more opportunities to develop their potential optimally. However, despite all this innovation, challenges remain, especially in terms of equitable access to technology in various regions. Therefore, it is important for all parties, including the government, schools and society, to work together to ensure that educational technology is accessible to all students in order to create a generation that is ready to face the future.

According to Ally (2022), the digital era has triggered the birth of innovation in learning as well as the emergence of various trends and issues in the scope of educational technology. The trend that is coming to the fore is a sharp increase in investment in the field of learning technology. There has been a very significant change in game design, which until now was just a game, is now able to provide an extraordinary learning experience to students. The availability of information in various types on a digital basis has made it easier for educators and students to enrich their learning insights. In the context of learning, it is also impossible for us to avoid negative impacts. This is the opportunity that learning experts and practitioners must take to immediately move to gain benefits by innovating and creating optimally. This research will explain "Innovation in Educational Teaching and Learning in the Digital Era" that occurs in the world of education and the role that educational technology must play in the context of teaching and learning.

METHOD

The method used in this research is the library method which combines literature with facts in the field. In this case, the data or materials obtained come from libraries in the form of books, journals and so on. The research was carried out in October 2024. Books and other literature are sources of data that will be processed and analyzed by researchers. Data sources were obtained by collecting library sources to obtain theoretical information and information. The data analysis technique is to summarize, present the data and provide conclusions.

RESULTS AND DISCUSSION

Education is an important factor in building the nation's future. In the current digital era, technological developments have a big impact on the way students study and study. Teaching and learning innovation is very important to develop so that students can adapt to various technological advances in this digital era. Old ways of learning that are no longer relevant to current developments should be evaluated and improved so that students are not left behind by increasingly developing times.

Education in the digital era has significant differences from education in the previous era. This is due to the increasingly dominant role of technology in everyday life, including in the teaching and learning process. Learning in the digital era can be done online or offline, and utilize various technologies, such as smartphones, tablets, laptops or computers. However, learning in the digital era also raises various challenges, such as unequal internet access, unequal technological abilities among students, and a lack of understanding of how to use technology effectively in the learning process. Therefore, learning innovation is very important to be able to overcome these challenges and improve the quality of learning and student learning outcomes in the digital era. The challenge that needs to be resolved immediately is the gap between teachers and students in utilizing technology. As a young generation who grew up in the digital era, students are accustomed to using the internet in their daily lives and living in a digital communication technology environment. Therefore, their communication and knowledge management patterns are greatly influenced by technology.

In various studies and literature, the term digital native is increasingly used to describe students who grew up in the digital era and are accustomed to technology. This research is important to carry out because innovation in teaching and learning in the digital era has become urgent in facing the challenges of learning in the digital era. Apart from that, teaching and learning innovation is also very necessary in adapting to increasingly rapid technological developments. Therefore, teaching and learning innovation is very important to be able to adapt to technological developments and make optimal use of them in the learning process.

Educational Teaching Innovation in the Digital Era

Becoming an educator in the digital era requires harder effort compared to decades past. The development of the digital world sometimes means that the relationship between teachers and students is no longer as expected. In the past, students really looked forward to teachers as guardians of the arrival of new knowledge and insights, but now that doesn't happen anymore. Not only that, students can also have problems with the flow of unselected information, so that what they obtain through digital information exceeds what they should learn. For example, internet media is a medium that really provides many benefits, but there are also things that can be dangerous for children. Based on research conducted by the United States Department of Justice which proves that around 70% of children experience bad events on the internet. Even 25% of them were sexually abused without their parents knowing. Therefore, children must be taught about the risks of using the internet.

Students in the industrial era 4.0 have very different characteristics. The digital era will give birth to a digital native generation, which means a generation that is born, grows, grows up and interacts with various kinds of digital media. This condition will have a direct psychological impact which affects the cognitive map. Students' needs, changes and habits will tend to follow the things they see through the media they see and use most often. If this mechanism is not anticipated properly, on the other hand, it will give birth to a generation that

is good at lying, deviant social behavior, decreased school performance and even behavior that is detrimental to themselves and others.

According to Mayer, 2009; Aldrich, 2005; Duffy & Jonassen, 2013; Prensky, 2021, in the digital era, the role of parents, teachers and society is very important so that children can continue to use technology for positive things and do not lose their character as future candidates for the nation. The family is the main place where children develop so they are expected to be able to supervise and guide children in the use of technology. Teachers can provide good teaching and utilize technology for the learning process. The community plays a role in providing supervision and motivation for children so that they do not do deviant things. Apart from that, there are also several things that can be done to minimize the negative things about the use of information technology in education. The use of information technology for children must also be considered carefully. Do not use technology as the only media or means of learning. Optimizing the use of technology in education without eliminating applicable ethics. Supervising the use of technology such as cell phones by minors, and enforcing legal functions that serve as controlling operating standards in the application of information technology. So it is necessary to collaborate with various parties so that children's use of gadgets can be optimal and in accordance with their objectives.

Greenhow dan Lewin (2021), Technology used in education also has positive and negative impacts. The positive impact of using technology on education is as follows.

- a. The use of time, costs and logistics will be more efficient if you utilize technology in the learning process.
- b. Making it easier to obtain information and existing information will be spread more easily without being limited by space and time.
- c. Providing a broader learning experience for children.

The negative impacts resulting from the use of technology in education are as follows.

- a. Changing social life.
- b. There is a change in behavior, ethics, norms or morals of life.
- c. Excessive use by children can make children anti-social because they are engrossed in the virtual world rather than the real world.
- d. Addiction to the use of technology can also make children behave lazy and wasteful.

Learning Innovation in the Digital Era

Digital era education is currently facing new challenges and opportunities in optimizing the learning process. The development of the digital era has resulted in major changes in various areas of life, including education. Now, learning innovations in the digital era, especially IT-based learning, are becoming increasingly popular as a solution to improve the quality of education. The digital era is an era that uses technology.

Regarding the learning context, innovation through the use of technology is a necessity to increase students' understanding and adapt to current developments. Learning that only uses lecture methods and textbooks is often considered less interesting and less contextual for students, so it can reduce their interest and motivation to learn. In the current digital era, developments in information and communication technology have brought significant changes to the world of education. The use of technology in learning can provide a more interactive, collaborative and student-centered learning experience. Today's young generation are "digital natives" who have been accustomed to digital technology since childhood, so learning that integrates technology will be more suited to their learning style. Through digital simulations, students can gain a more real learning experience. Utilizing online learning platforms, such as a

Learning Management System (LMS) or Massive Open Online Course (MOOC), can also facilitate more flexible and open learning. Students can access course materials, participate in online discussions, and collaborate with other students or teachers from anywhere and at any time.

The use of social media in education can improve students' digital literacy, collaboration, and critical thinking skills. Social media facilitates discussion and collaboration between students and teachers in discussing issues that are relevant to real life. However, the application of technology in learning also has challenges that need to be faced. One of the main challenges is limited access to technology and supporting infrastructure, especially in areas with limited resources. This limited access can be an obstacle in implementing technology in learning. Another challenge faced is the readiness of teachers to integrate technology effectively in the learning process. Koehler et al., (2020) That not all teachers have the competence and readiness to use technology to support the teaching and learning process. Apart from that, developing quality digital content that is in line with the curriculum is also a challenge in itself.

Sugata Mitra (2020), Digital content development requires special resources and expertise, which may be an obstacle for some schools or educational institutions. Therefore, learning innovation using digital technology is able to make the learning carried out more efficiently and in accordance with the maximum expected results. The importance of innovation in learning can also prepare students to become active, critical and responsible humans in the digital era. As well as being able to grow their knowledge regarding the use of digital technology, so that students' abilities related to technology are not left behind by other countries.

CONCLUSION

Innovation in Educational Teaching and Learning in the Digital Era through the use of technology is a necessity to increase students' understanding and adapt to current developments. Utilization of interactive multimedia, digital simulations, learning online, and social media can provide a more interesting, contextual, collaborative, and student-centered learning experience. However, implementing technology in learning also has challenges, such as limited access to technology, teacher readiness, and digital content development. To face these challenges, cooperation is needed between the government, schools, teachers and other stakeholders in providing adequate infrastructure, training and resources. With the right innovation and adequate support, the use of technology in learning can be a solution in improving the quality of education and prepare students to become intelligent, active, critical and responsible humans in the digital era.

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