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Analysis of The Use of Digital Learning Media Technology in Science Lesson Materials in Primary Schools Based on The Philosophy Perspective of Progressivism

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ABSTRACT

This research aims to investigate the use of digital learning media technology in teaching science in elementary schools by considering the perspective of progressivism philosophy. In an era of technology that continues to develop, digital media art is an important key to supporting the application of technology. The use of digital teaching materials, especially in science learning in elementary schools, is an innovation. It is hoped that the rapid and rapid development and progress of Information Technology Systems will be able to bring changes and positive impacts in various aspects of life, especially in the advancement of the world of education. Therefore, the world of education must continue to make updates in line with current developments to avoid being left behind in technological developments. A progressivism approach is applied to evaluate the impact of using technology on active interaction and student involvement in the learning process. The results of the analysis show that the application of digital learning media technology can effectively improve student understanding, skill development and stimulate critical thinking at the basic education level.

Keywords: Education, Elementary School Science Lessons, Progressivism Philosophy



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INTRODUCTION

Education has an important role in forming a good image in humans and developing their full potential. According to Law Number 20 of 2003 Article 3 concerning the Education System, the aim of education is to make students into individuals who are faithful, devout, have noble character, healthy, knowledgeable, creative, independent, as well as becoming democratic and responsible citizens. Thus, education aims to create complete humans according to their character. Potential development can be started early at the elementary school level by integrating character cultivation in accordance with Pancasila values in all educational activities (Artharina et al., 2023).

In the current information and digital era, advances in science and technology have experienced significant growth. So it has an impact that includes the openness of information and knowledge globally, across the boundaries of distance, place, space and time. Human life in the digital era is closely related to technology, where information and communication as part of technology also influence various aspects of life and change the way people carry out daily activities, including in the educational context which increasingly adopts digital media5. With the rapid and rapid development and progress of Information Technology Systems, it is hoped that it will be able to bring changes and positive impacts in various aspects of life, especially in the advancement of the world of education. The development of Information Technology has had a huge impact on various aspects of life, one of which has a positive impact in the field of education which results in the quality of education increasing (Agustian & Salsabila, 2021). Therefore, the role of information technology in the learning process at school, such as the use of computers and the internet by teachers and students, is very important because whether a nation is advanced or not can be measured by the quality of its education.

Therefore, the world of education must continue to make updates in line with current developments to avoid being left behind in technological developments. In the current era, the development of teacher administration in Indonesia has increased over time. In the midst of these demands, teachers' performance as educators is expected to achieve maximum results in educating students. Apart from that, teachers are also required to have the ability to innovate in designing educational programs to improve the quality of the learning process in teaching students. A student's success in achieving learning goals can be influenced by internal and external factors. Internal factors include students' desires and willingness to achieve goals, while external factors involve encouragement and the role of teachers, learning environment support, as well as parental motivation and supervision in children's educational development. Therefore, a teacher needs to manage learning designs, approaches and learning models to increase children's enthusiasm for learning, so that learning goals can be achieved optimally.

In an era of technology that continues to develop, digital media art is an important key to supporting the application of integrated technology. The use of digital teaching materials, especially in science learning, is a significant innovation (Darmayanti et al., 2022). Digital teaching materials help build students who are scientific, able to solve problems and assess information logically. Science education often faces obstacles in understanding abstract concepts, but the use of technology, especially visuals, can increase the effectiveness of learning (Yeni et al., 2020). This approach not only increases students' interest, but also enriches knowledge in a real and concrete way.

In the world of education, especially at the elementary school level in Indonesia, there are several problems including low understanding of concepts, learning outcomes and student learning motivation. Other research also shows that the use of learning media in elementary schools is still not optimal, including the low use of learning media based on Information and Communication Technology. The teacher's inability to present teaching material creatively and innovatively can make learning feel monotonous and boring, so that students' concentration decreases (Rosmana et al., 2023). Even though currently there are various technology-based or

digital learning resources that can be applied, it needs to be acknowledged that the competencies needed to face the era of industrial revolution 4.0 have not been fully prepared.

Some of the causes include a lack of competency provisions, even though e-digital media or electronic-based learning is not a new concept, its use is still not effective, and many teachers still use conventional teaching methods. Some educators may not have used technology-based learning because they may still lack skills in virtual technology or they may be proficient but reluctant to integrate it into their teaching. There is also the possibility that even though they have used it, the teaching method used is not appropriate, resulting in less than optimal performance results. Therefore, it is important to have awareness and enthusiasm to improve the quality of learning, so that students can become graduates who are ready to face the challenges of the world of work in the era of the industrial revolution 4.0.

One of the schools in educational philosophy that encourages changes in the implementation of education is progressivism. This school is a current of thought that rejects conventional educational methods and is willing to accommodate changes along with the times, including technological and environmental developments (Fitra, 2022). The progressivism educational philosophy teaches its followers to always strive to continue developing, following the evolution of the environment, and optimizing the potential of students (Rahmah, 2022). The use of digital technology not only impacts how children learn and connect with knowledge, but also changes the dynamics of their communication and interactions with others. In the context of the digital era, the view of progressivism philosophy introduced by John Dewey becomes relevant. Various research has been carried out using Dewey's framework to understand the impact of technological developments in education. One study that reflects the concept of progressivism is the work of Beckett (2018) in (Dini, 2023). This research discusses how educators and students continually adapt to technological advances. In this context, Dewey's progressivism emphasizes the importance of adaptation and flexibility in learning, where direct experience and active interaction with the environment are the keys to knowledge formation. (Talebi, 2015) also conducted research that adopted Dewey's progressivism perspective. The focus is on education, schools, children, and the role of teachers in facing ongoing technological developments. Dewey's progressivism thinking about education as an active, collaborative process and relevant to everyday life is very relevant in facing the challenges of technological change (Novianti et al., 2022).

Based on the Journal (The Role of Digitalization of Learning Media on the Quality of Learning) which says that in the current era of information openness, technological literacy has become something very important (Pratama, 2022). Skills in operating technological or digital devices are a must. Skills in interacting in the digital world must also be honed because effective and efficient communication will occur if students are able to understand the forms of communication that exist in the digital world. In the learning context, the world of education is required to play an active role in improving the quality of learning. Learning media are tools used in delivering teaching material consisting of books, tape recorders, cassettes, video cameras, video recorders, films, slides, photos, pictures, graphics, television and computers (Anam et al., 2021).

Based on the data that the author has obtained, the author is interested in further research regarding Analysis of the Effectiveness of Using Digital Learning Media in Citizenship

Education Subjects in Elementary Schools, as a reference for teachers in innovating learning using digital learning media in Elementary Schools.

METHODS

In reviewing this paper, we used a quantitative method, namely a literature study approach by critically and in-depth examining journals that are worthy of being used as references. The literature study method is a series of activities related to methods of collecting library data, reading and taking notes and processing research materials. The data used comes from journals, ebooks, scientific articles.

RESULTS AND DISCUSSION

Results

1. Technology concept

Technology, derived from the Greek word "technologia" reflects the systematic handling or treatment of something. With the root word "techne" meaning art, ability, science, or skill, technology in ancient Greek was recognized as a special activity and knowledge. In Webster's Dictionary's view, technology is the systematic treatment of something, describing the concepts of art, craft and expertise. The role of technology in learning involves facilitating collaborative relationships and building meaning that is more easily understood. In detail, technology can be directed to; creating collaborative communication between teachers, lecturers, students, and learning resources through online applications such as Facebook, Zoom, Google Meet, and other networks, providing a complex, realistic, and safe problemsolving environment using technologies such as hypermedia and software for projects, and actively forming meaning via the internet by searching for the latest research, photos and videos, enabling students not only to enjoy browsing but also to learn, understand and know the substance of the material they study.

In the beginning, ancient humans only used technology as a tool to find food, hunt and process food, made from simple materials such as bamboo, wood and stone. Technological progress develops along with the level of human culture and civilization. The term "technology" comes from the Greek "tecnologia" which means a systematic discussion of arts and crafts. Initially, technology was defined as the art of producing means of production, then developed into the use of science according to human needs. Henslin states that technology includes equipment and the skills or procedures required to create and use the equipment. Sociologically, technology sets the framework for a group's non-material culture, influencing the way people think and relate to others. Technological development experiences cycles, such as the five condrative cycles which include the technological revolution, the railway network, the invention of the conveyor belt, atomic power, mass motorization, and the development of micro electronics and biotechnology according to Jacob.

In general, online learning technology can be divided into three categories: material delivery technology, evaluation technology, and special platforms. Material delivery technology includes the use of direct and indirect feedback in conveying information to students. Meanwhile, evaluation technology allows presenters to provide evaluation questions that can be graded automatically, such as multiple choice questions. Evaluation results are stored in a data base, enabling analysis of student performance. Examples of applications such as Quizizz provide evaluation technology that is easily accessible. Dedicated platforms, on the other hand, are designed exclusively for distance education purposes. This category integrates material provision and evaluations. Although effective, this technology requires significant

financial investment, so only a few educational institutions, such as Ruang Guru and Moodle, are able to utilize it.

2. Digital Learning Media Concept

Basic Media Concepts

Media is an entity that can be defined through its technology, symbol system, and processing capabilities. The most striking characteristics of a medium are the mechanical and electronic aspects that influence its function, shape, and other physical features. For example, television can be considered a medium that uses representational symbol systems, such as images and linguistic audio. Media can also be described and differentiated based on their characteristic ability to process or operate the available symbol systems. The processing capabilities of a medium can contribute to the learner's abilities, facilitate the learner's operations, and enable them to perform tasks that were previously difficult to achieve. It should be remembered that media can be differentiated based on characteristic clusters, symbol system profiles, and processing capabilities, and not all of these capabilities are always used in every learning context.

The term "media" was first used to refer to newspapers, television, and radio more than two centuries ago. However, in the modern context, media has undergone evolution and includes diverse connotations, including social media, mass media, print media, and visual media. Media can be considered as a communication channel that plays an important role in the information exchange process. Technological media, in this case, is a means or collective communication tool used to store and convey data and information. Media technology has made the communication process easier, with the internet becoming one of the most dominant and influential media technologies in human life today. Students are expected to use media tools in their educational environment and have a general understanding of the various technologies available. In the learning context, electronic media comes in various forms, such as tablets, laptops, desktops, cell phones, mp3 players, DVDs, game systems, radio and television. Other media tools such as projectors and electronic visual boards can also help improve teaching and learning in educational environments. As technology develops, media continues to play a role in shaping the way we understand and interact with the world around us.

Teaching and Learning Concepts

Teaching is a concept that is understood from various points of view, but basically involves the teacher's task of providing instructions in procedures and guiding students to understand, change, and transfer information. Teaching not only involves conveying statements and facts, but also involves restating them from students to improve their ability to understand and think about the concepts they are building in their minds. The teaching process can be thought of as an attempt to lead students through a sequence of statements, guide them through problem solving, and expand their knowledge. In this context, teaching is likened to a machine that helps humans in the transformation of knowledge, mental involvement, and activities that students must go through. In the 21st century era, it is important for teachers to encourage their own efforts and experiences in learning, by using modes of discovery and inquiry based on information and communication technology.

Learning, on the other hand, is an active process that involves students directly. Without the presence of students or learners, the learning process cannot occur. Learning activities become more effective when students are actively involved and understand the material they are studying. Factors such as learner goals, values, aspirations and motives can also influence the learning process. From a behaviorist perspective, learning results from behavioral manifestations that emerge after learning occurs. This means that a person's ability to

demonstrate behavior related to learning can be considered as real evidence of the learning process. Meanwhile, the cognitive school of thought sees learning as an active process of construction and reconstruction of meaning. Students' ability to learn is closely related to cognitive abilities, knowledge and previous experience, as well as interactions with their environment. Therefore, the learning environment plays a key role in students' efforts to acquire knowledge, skills and ideas.

Media Technology in Learning

In the context of learning, the broad scope of Information and Communication Technology (ICT) includes various products that are capable of storing, retrieving, manipulating, and sending or receiving information electronically in digital form. These products involve devices such as personal computers, digital television, email, and even robots. Therefore, ICT can be understood as the involvement of technology in the storage, retrieval, manipulation, transmission, or reception of digital data. Knowledge of ICT allows us to transfer and receive data through the use of media technology. In recent years, the role of computers in learning institutions has expanded with a variety of uses. The use of technology is becoming increasingly important as a tool to improve students' reasoning and problem-solving abilities. The focus of media technology access is increasingly centered on the learner experience, where media tools, devices, techniques and applications serve as supports that can integrate inquiry-based learning. With the help of media technology, students have the ability to explore, think critically, write, read, conduct research, and solve problems. Thus, media technology is not only a learning tool, but also opens up new opportunities to support the development of higher-order thinking skills and increase creativity in learning contexts.

New technology, including media, has played a crucial role in all aspects of human life, including in the field of education. This reflects that significant progress cannot be achieved without the integration of technology into education. As the world adapts to complexity, a shift in educational needs occurs from simply teaching and learning isolated skills and information in their respective fields. Today, the focus of education is to teach skills that can prepare students to face and solve complex challenges that arise in various fields. In facing a future filled with technology, curriculum developers need to prepare themselves and adopt effective strategies to embed technology can be used to support and enhance learning. From video content and digital filmmaking to the use of laptop computing and smart smartphone technology, everything has been implemented in the classroom, and technological innovations continue to emerge.

Learning resources, including media, are increasingly important because they help learners not only see objects but also manipulate them, providing more opportunities to understand the messages conveyed. Therefore, the use of media technologies such as projectors, cameras, video, microphones and others is increasingly relevant in assisting and improving teaching and learning at all levels of education. Not all technologies have the same impact on learning, and their role can vary greatly. Therefore, it is important to understand which technologies are used for what purposes. Various types of technology can be used to support and enhance learning, including the concept of learning from computers, where technology acts as a tutor to improve basic skills and knowledge, and learning with computers, where technology is used as a tool that can be applied for various purposes in the learning process . By continuing to understand and integrate technology intelligently, education can continue to develop according to the demands of the times.

Elementary School Science Lesson Materials

Basic education is the initial phase of character formation in students, where teachers have the responsibility to instill positive values according to the child's age. Currently, learning in elementary schools increasingly focuses on students' active role, motivating them to seek knowledge from various sources. One of the subjects is science, which not only teaches facts but also the process of scientific discovery. The implementation of science learning can face obstacles such as lack of preparation, inappropriate time allocation, and variations in teaching methods used by teachers. Science is rational and objective knowledge about the universe and its contents. This subject is taught at every level of education, including elementary school. Science learning in elementary school aims to shape children's personalities as a whole, enabling them to develop knowledge and understanding of science concepts that can be applied in everyday life. However, the results of science learning, especially in the sub-themes of Wealth of Energy Resources, Utilization of Natural Resources, and Conservation of Natural Resources in Indonesia, show low student understanding. Even though science is taught at every level of education, there are still students who have not achieved the expected achievements in these subjects. Learning Natural Sciences (Science) is considered a subject that cannot only depend on theory or reading alone. The use of media or practical experiments is also needed to provide students with an understanding of material that may seem abstract to become more concrete. Therefore, it is important to have interesting learning media in order to improve student learning outcomes. Previously, the use of learning media tended to be less varied and innovative, but now it has changed to be more diverse and innovative, one of which is by utilizing digital learning media technology, namely showing learning videos.

Progressivism Philosophy

According to John Dewey, progressivism is a future-oriented philosophy that presents humans (students) as subjects who have the opportunity and potential for self-development and the ability to solve the various problems they face. Additionally, John Dewey believed that schools were small community environments that reflected the school itself. The philosophy of progressivism considers that progress is not a certainty or a result that has been achieved, but is a process that continues. Therefore, this philosophy encourages change and reform in the existing social and political system in order to improve the living conditions of society as a whole. Progressivism as a school of educational philosophy emerged as a response to traditional educational models which emphasized formal teaching methods, mental (psychological) learning and classical literature of Western civilization. The progressive school of philosophy supports new thinking which is seen as better in terms of future educational development. Progressivism is not an independent school of educational philosophy, but rather a movement or association founded in 1918.

In terms of education, the philosophy of progressivism emphasizes a student-centered learning approach and involves active participation of students in the learning process. This is considered to help students to develop broader skills, knowledge and understanding. The philosophy of progressivism also prioritizes human rights, equality and individual freedom in society. This philosophy believes that an advanced society is a society that provides equal opportunities for everyone to develop and achieve their maximum potential. In the Oxford dictionary, cult is defined as "ideology" a belief held by a group of people. According to the Big Indonesian Dictionary (KBBI), sects are beliefs and convictions that serve as guidelines for doing various things, including responding to political problems. In general, a cult refers to a belief followed by a group of people. Progressivism, derived from "progressive," means moving forward and thinking towards improvement.

In the context of progressivism, this refers to a belief that desires progress and change that brings improvement. This school influenced educational reform at the beginning of the 20th century and is related to previous schools such as naturalism, experimentalism, instrumentalism and environmentalism. Progressivism is often associated with pragmatism

because it contains many ideas from the philosophy of pragmatism, emphasizing the practical nature of dealing with various aspects of life. Basically, progressivism has main characteristics related to the concept of progress. The focus tends to be more towards the future than the past, where past experiences are considered as learning to understand and shape the present and future. Progressivism, especially in the context of education, is a theory that developed as part of the socio-political reform movement in the United States in the late 19th and early 20th centuries, influenced by the major impact of industrialization. In politics, this movement was led by figures such as R. L. Follete and W. Wilson to develop political democracy, while in the social realm, James Adams led the movement to contribute to education as a human science.

Progressivism theory emphasizes placing students at the center of learning, recognizing their natural tendencies to learn and explore the world around them, and understanding individual needs that must be met in their lives. In this context, progressivism considers these tendencies and needs as sources of interest that can guide students in studying various issues. John Dewey is known as a pioneer of progressivism in education. Since its inception, this school has responded positively to the influence of science and technology. The view towards the growth and development of society is very optimistic, believing in human abilities. Philosophy is the basis for curriculum implementation, assisting curriculum developers in determining educational processes, goals and objectives.

Discussion

Analysis of the Use of Digital Learning Media Technology in Science Lesson Materials in Elementary Schools Based on the Perspective of Progressivism Philosophy

The development of digital technology was initially the art of producing production tools, then developed into the use of science according to human needs, technology also includes the equipment and skills or procedures needed to make and use the equipment. Comparing with the statement above regarding current digital technology, Indonesia is experiencing very rapid development because in Indonesia digital technology is very influential on the level of education, in recent years the role of digital technology in learning institutions has developed with a variety of uses. The use of technology can increase children's interest in learning, because with a more attractive appearance students can avoid feeling bored while learning. The use of technology is very important as a tool to improve students' reasoning, students' critical thinking abilities. With the help of digital technology, students also have the ability to explore, think critically, write, read and solve problems. Apart from that, technology can also help students to obtain broader and more up-to-date information. Apart from building critical thinking, digital media can also increase student learning motivation.

Difficulty concentrating has become a common problem in elementary schools, especially in lower grades. The way to overcome this problem is by using digital media in learning, and digital media as a means of making learning fun, not just by showing it but also helping children understand something abstract. Likewise, at the elementary school education level there are now several schools that use digital learning methods, for example: in the science (Biology) subject which discusses various types of movement in animals and plants. The use of this learning method in science (Biology) subjects can be done by showing videos or films related to the material. In this way, students can more easily understand and imagine their thoughts, because students can see directly examples of various types of movement in animals and plants. There are still many problems experienced by students, one of which is a lack of appropriate learning resources, this problem is commonly faced by students in schools, the way to overcome this problem is by using technology which is done by adapting students' learning styles.

Based on the explanation explained above regarding the view of progressivism philosophy regarding the use of digital learning media technology in science learning materials in elementary schools, it can be seen that this condition is in line with the concept of progressivism philosophy which states that education not only provides knowledge, but also provides thinking training. In addition, this theory understands individual needs that must be met in students' lives. In this context, progressivism considers these tendencies and needs as a source of interest that can guide students in understanding various problems. Since its inception, this school has responded positively to the impact of science and technology. According to the view of progressivism philosophy, students are subjects who have the opportunity and potential for self-development and the ability to solve the various problems they face. The progressivism philosophy here also emphasizes a learning approach that is student-centered and involves active participation of students in the learning process.

CONCLUSION

Analisis penggunaan teknologi media pembelajaran digital dalam mata pelajaran IPA di sekolah dasar dapat dilihat dari perspektif filsafat progresivisme. Pendekatan ini mendorong pengembangan keterampilan kritis dan pemikiran mandiri melalui interaksi aktif dengan materi pembelajaran. Penerapan teknologi media pembelajaran digital dalam pembelajaran IPA di sekolah dasar, dengan perspektif filsafat progresivisme, menunjukkan potensi untuk meningkatkan interaksi aktif dan keterlibatan siswa dalam proses pembelajaran. Dengan memanfaatkan pendekatan progresif, penerapan teknologi ini dapat menjadi sarana efektif untuk memfasilitasi pemahaman konsep, pengembangan keterampilan, dan pembentukan pemikiran kritis pada tingkat pendidikan dasar, selain itu penggunaan media pembelajaran digital juga dapat memfasilitasi proses pembelajaran yang lebih dinamis dan memenuhi kebutuhan pemahaman siswa, memungkinkan mereka untuk eksplorasi dan pemahaman yang lebih mendalam. Dengan kata lain, integrasi teknologi dapat memberikan kontribusi signifikan dalam mendukung pendekatan progresif dalam pendidikan dasar.

CONFLICT OF INTEREST

Progressivism supports learning that emphasizes exploration and understanding concepts through direct experience. The use of digital learning media can enrich this experience, but must be balanced with attention to the diversity of learning styles and the limitations of technology in the learning environment. It is important to address these conflicts of interest by providing training for teachers in effectively integrating technology, ensuring equitable access to technology across students, and maintaining a balance between technology use and social interaction in the learning process.

REFERENCES

- Agustian, N., & Salsabila, U. H. (2021). Peran teknologi pendidikan dalam pembelajaran. *Islamika*, *3*(1), 123–133.
- Anam, A., Mulasi, M., & Rohana, R. (2021). Effectiveness of Using Digital Media in the Teaching and Learning Process_. *Jurnal Of Primary Education*, 2(2), 87.
- Artharina, A., Fajriyah, F., & Mardiana, M. (2023). Development of Digital Teaching Materials for Pancasila Education Based on the Pancasila Lesson Profile for Class V SDN 2 Tubanan Jepara. *Mandiri University PGSD FKIP Scientific Journal*, 09(04), 80.
- Darmayanti, N. W. S., Saputri, N. K. T., & Prabayanthi, G. D. (2022). Analysis of the Implementation of Grade 5 Science Learning at SD N 1 Cempaga. *Jurnal Pendidikan Dasar Rare Pustaka*, 4(2), 20–30.

- Dini, J. P. A. U. (2023). Child-Friendly Schools for PAUD: Telaah Filsafat Progresivisme John Dewey. *Journal of Obsession: Journal of Early Childhood Education*, 7(1), 27–41.
- Fitra, D. K. (2022). Differentiated Learning from a Progressivism Perspective in Science Subjects. Jurnal Filsafat Indonesia, 5(3), 250–258.
- Novianti, R., Copriady, J., & Firdaus, L. N. (2022). Parenting in the Digital Era: An Examination of John Dewey's Progressivist Philosophical Views. *Journal of Obsession: Journal of Early Childhood Education*, 6(6), 6090–6101.
- Pratama, P. (2022). The Role of Digitalization of Learning Media on the Quality of Learning. *Jurnal Sosial Humaniora*, 13(2), 153.
- Rahmah, R. (2022). Implementation of Progressivism in Learning According to Educational Philosophy and Curriculum Development in Indonesia. *Journal of Educational Management and Islamic Studies*, 9(2), 242.
- Rosmana, P. S., Iskandar, S., Rahma, A. R., Maria, S., Supriatna, S., & Wahyuningtyas, T. (2023).
 Effectiveness of Using Digital Learning Media on the Learning Outcomes of Class 5
 Students at SDN 6 Negeri Kaler. *Sinektik Journal*, 6(1), 17.
- Talebi, K. (2015). John Dewey--Philosopher and Educational Reformer. *Online Submission*, 1(1), 1–13.
- Yeni, H. O., Anggraini, C., & Meilina, F. (2020). Efforts to Improve Student Learning Outcomes in Science Learning Using Visual Media for Class IV Students at SDN 2 Tebing, Karimun Regency. *MINDA Education Journal*, 1(2), 10–18.