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Educational Policy Transformation in the Era of Society 5.0

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Abstract

This study aims to describe the direction of educational policy transformation and human resource strengthening in the era of Society 5.0. Using a descriptive qualitative method, this study reviews various literature and educational policies published in the last five years. The results of the study show that contemporary education policy must be oriented towards synergy between technological innovation and human values. The application of school-based management and data-based governance has been proven to increase the effectiveness and participation of the community in education management. Digital transformation in education not only modernizes the learning system but also expands access to adaptive and inclusive learning resources. However, the main challenges lie in the readiness of educators, infrastructure gaps, and the need to strengthen the character of students so that they are able to use technology ethically. Thus, future education policies need to be directed towards a humanistic, participatory, and sustainable system to create an intelligent and civilized society.

1. Introduction

Education is the main foundation in building an adaptive and competitive society amid increasingly complex global dynamics. With the development of Society 5.0, the education paradigm has shifted from a knowledge-oriented system to an approach that emphasizes creativity, collaboration, and critical thinking skills. This change requires innovative education policies that are able to bridge the needs of technology and humanity in an increasingly digital and inclusive learning ecosystem (UNESCO, 2022). Thus, modern education policies not only function as administrative regulations, but also as strategic instruments to strengthen the quality of human resources in facing the industrial and social revolution of the 21st century.

Digital transformation in education is a logical consequence of advances in information and communication technology. Digitalization drives change in education management, learning processes, and even patterns of academic achievement evaluation (Oliveira & De Souza, 2022). In the post-pandemic era, educational institutions in various countries have adopted blended learning systems and data-based technologies as part of their strategies to improve the quality of education (Bygstad et al., 2022). However, the main challenges faced are the digital competency gap between educators and students, as well as the limitations of policies that are able to quickly adapt to technological changes (Broo et al., 2022). Therefore, digital transformation is not merely the application of technology, but a recontextualization of the human-centered education paradigm.

One relevant approach to strengthening the quality of education in the digital age is the implementation of School-Based Management (SBM). This concept gives

schools greater autonomy in resource management, curriculum planning, and decision-making that involves community participation (Kurniawan & Nurdin, 2023). Through SBM, schools can tailor their learning policies and strategies to local needs without neglecting national standards. This approach has proven effective in increasing accountability, efficiency, and public participation in the education process (Schildkamp, 2019). In the context of Society 5.0, MBS plays an important role in ensuring that technological innovation is balanced with human values and education policies that are responsive to social change.

In addition to policy and governance, human resource development is a key element in strengthening the quality of education. Institutions such as the OECD (2021) emphasize the importance of lifelong learning and improving digital competencies to prepare the younger generation to face the challenges of a knowledge-based economy. This is in line with Amatavivat's (2023) view that 21st-century education must facilitate character building, work ethics, and interdisciplinary thinking skills. Therefore, curriculum development needs to be directed towards the integration of technological skills and human values in order to produce graduates who are not only intellectually intelligent, but also morally and socially resilient.

On a global scale, various international organizations such as UNESCO and SEAMEO promote the concept of sustainable education, which emphasizes collaboration between countries in creating education systems that are adaptive to technological and cultural changes (UNESCO, 2022; Amatavivat, 2023). This vision is in line with the Society 5.0 approach, where technology is used to strengthen

human welfare, not replace it. Therefore, current education policies must be transformative, data-driven, and oriented towards sustainable social welfare improvement (Dilekçi & Karatay, 2023). Considering these various factors, it is important to formulate education policies that are able to integrate the principles of Society 5.0, digital innovation, and human empowerment. Through participatory governance, multisectoral collaboration, and the strengthening of adaptive human resources, education can play a major catalytic role in creating a smart, productive, and civilized society in an ever-changing global era.

2. Methods

This study uses a descriptive qualitative approach that aims to comprehensively describe the phenomenon of education policy in the digital era and Society 5.0. This approach was chosen because it is able to reveal the meaning behind the data, views, and experiences of education actors in facing policy and technological transformation in the education sector. Through this method, the research seeks to understand how the implementation of education policies, strengthening school-based management, and human resource development is carried out in a dynamic and complex social context.

Research data is collected from various secondary sources such as scientific journals, policy reports, official documents of educational institutions, and publications of international organizations relevant to educational issues in the digital age. Data collection was carried out systematically through an in-depth literature study that highlighted the relationship between education policy,

technological innovation, and improving the quality of human resources. The main focus of data collection is directed at scientific publications published between the last five years so that the research results reflect the current conditions and policies in the education sector. The sources used were selected based on credibility, relevance to the topic, and their contribution in explaining the phenomenon of education in the era of digital transformation.

Data analysis is carried out using content analysis techniques, which are studying and interpreting the content of various literature and documents to find patterns, concepts, and relationships between variables. The analysis steps include the process of data reduction, data presentation, and drawing conclusions. In the data reduction stage, the researcher selects important information related to education policies, the implementation of school-based management, and digital-based human resource development. Furthermore, the presentation of data is carried out by compiling findings in the form of a descriptive narrative that describes the phenomenon in a complete and meaningful way. Finally, conclusions are drawn to provide an in-depth understanding of the dynamics and direction of education policy in the era of Society 5.0.

The validity of the data is maintained through the process of triangulation of sources, which is comparing the results of various literature and reports in order to obtain an accurate and objective picture. Thus, this descriptive qualitative method not only provides an empirical description of educational phenomena, but also produces a reflective interpretation of the direction of future educational policy and innovation. The results of the analysis are expected to be able to become a

conceptual basis for further research and policy formulation that is relevant to the demands of the times.

3. Results

The transformation of education in the digital era and Society 5.0 shows fundamental changes in the way humans learn, think, and interact. The current education policy is not only focused on the aspects of equal access and quality, but also directed to integrate technology in all aspects of education implementation. This is in line with UNESCO's (2022) view which emphasizes the importance of building a new social contract in education that prioritizes collaboration, equality, and the ethical use of technology for the benefit of humans. In this context, education policy is a strategic instrument in forming an education system that is adaptive, competitive, and relevant to future needs.

The results of the literature analysis show that the orientation of global education policy is moving towards human-centered education. This concept emphasizes the importance of establishing a balance between digital intelligence and human values. Erdoğan Coşkun (2022) explains that the 21st century education paradigm is no longer just about preparing students to be able to master technology, but also to have a strong ethical and social capacity to use technology wisely. These changes demand a system of education that is flexible, data-driven, and responsive to global social and economic dynamics. Thus, effective education policies must be able to adjust curriculum, learning models, and management strategies to be in line with digital transformation.

The implementation of technology in education policy also gives rise to the concept of data-based education governance. According to Schildkamp (2019), the use of data in educational decision-making is an important step to increase the transparency, effectiveness, and accountability of educational institutions. The data-driven system allows schools and policymakers to monitor the development of education quality in real time and adjust policies according to field needs. However, the challenge that arises is the limited capacity of human resources to understand, manage, and interpret data optimally. Therefore, there is a need for training and strengthening digital competencies for educators and school managers so that data-based transformation can run effectively.

In addition to technological transformation, the social dimension of education policy has also undergone significant changes. Amatavivat (2023) emphasized that Society 5.0 demands synergy between humans, technology, and culture. Education is not only a means of knowledge transfer, but also a medium to build an inclusive global character and identity. In the context of Southeast Asia, organizations such as SEAMEO play a role in bridging cross-border cooperation to create a sustainable education system based on human values. This approach underscores the importance of collaboration between countries in increasing teacher capacity, curriculum exchange, and innovation-based research oriented towards social welfare.

Education management is one of the main pillars in realizing a superior education system. Oliveira and De Souza (2022) explained that digital transformation in education management can increase the effectiveness of

administrative processes, communication between stakeholders, and school resource management. Through digital-based management, educational institutions can optimize the school quality planning, supervision, and evaluation system. However, the effectiveness of digital management is highly dependent on organizational readiness, infrastructure availability, and government policy support. In practice, many schools face obstacles such as limited technological facilities, resistance to change, and lack of integration between educational units.

One of the approaches that has been proven to be able to strengthen the effectiveness of education policies in the digital era is the implementation of School-Based Management (SBM). According to Kurniawan and Nurdin (2023), MBS gives schools greater autonomy to design quality improvement programs and strategies based on local needs and potential. This approach not only strengthens school independence, but also increases community participation in educational decision-making. By combining the principles of SBM and digital transformation, schools can become innovation hubs that are responsive to societal needs and technological developments. However, the success of the implementation of MBS depends on the extent to which principals and teachers have digital leadership capacity and a commitment to transparent governance.

Digital transformation in education also affects the learning system. Supa'at and Ihsan (2023) highlight that at the basic education level, the integration of technology in learning still faces obstacles such as limited digital devices, teacher readiness, and lack of sustainable policy support. However, on the other hand, digitalization opens up new opportunities for interactive, flexible, and student-

centered learning. The hybrid learning model is becoming an increasingly relevant solution to combine face-to-face interaction with digital media. This transformation allows students to access a wider range of learning resources while fostering digital literacy from an early age.

At the vocational secondary education level, digital transformation has accelerated a shift in learning orientation towards the development of industry- and technology-based skills. Broo et al. (2022) found that vocational education institutions need to adjust the curriculum to the needs of the industrial revolution 4.0 and Society 5.0 so that graduates have competencies that are relevant to the modern world of work. Project-based education approaches, cross-disciplinary collaboration, and the use of simulated technology are effective strategies for shaping an adaptive and innovative workforce. In this context, vocational education plays an important role in strengthening the nation's competitiveness in a global market that demands high productivity and flexibility.

Education policy in the digital era also demands special attention to character development and moral values. Tavares et al. (2022) emphasized that the integration of character education in the Society 5.0 education system is the main foundation in building an ethical and empathetic society. Education that focuses too much on technology without paying attention to the humanitarian aspect risks producing a generation that is intellectually intelligent but poor in social values. Therefore, character education must be contextualized with technological developments so that values such as responsibility, empathy, and collaboration remain an integral part of

the learning process. This approach reinforces the balance between technological innovation and moral development in today's education.

From an international perspective, the OECD (2021) and UNESCO (2022) reports show that education systems in various countries are now directed to facilitate lifelong learning and sustainable adaptation to technological changes. The two institutions emphasized the importance of integrating 21st-century competencies such as critical thinking, digital literacy, and cross-cultural communication skills into national policies. Countries that successfully adopted this strategy showed significant improvements in the index of educational innovation and the quality of human resources. This proves that lifelong learning-oriented education not only increases individual competitiveness, but also strengthens the social and economic resilience of society.

Furthermore, Allès and tho Seeth (2021) explained that the digitization of education in religious-based institutions such as madrasas also encourages equitable distribution of education quality. Through the application of learning technology, students can access the material in a more flexible and interactive way. However, policies that emphasize teacher training, the provision of digital facilities, and technical assistance are still needed so that digitalization runs evenly in all education units. In this context, the role of the government is crucial as a facilitator and policy maker that supports digital transformation in an inclusive and sustainable manner.

The future direction of education policy is also in line with the views of Bygstad et al. (2022) who emphasize the need for vocational education reform to prepare the workforce in the Society 5.0 era. Education must be able to produce

humans who are not only competent in technology, but also have high social awareness to utilize technology for the common good. In this framework, digital transformation is not only about modernizing the system, but a process of technological humanization that puts humans at the center of innovation.

Thus, the results of this study confirm that effective education policies in the era of Society 5.0 must integrate four main pillars: digital transformation, participatory-based governance, character strengthening, and sustainable human resource development. Education is no longer just a means of academic achievement, but a foundation for building an inclusive, creative, and ethical society. The implementation of adaptive, innovative, and humanistic policies will be the key to the success of education in the face of ongoing global changes.

4. Conclusion

Education in the era of Society 5.0 requires a comprehensive transformation of learning policies, management, and practices to be more adaptive to technological advances while still being based on human values. The results of the study show that the effectiveness of education policies is highly dependent on the ability of institutions and policy makers to integrate digital innovation with sustainable education goals. Approaches such as school-based management and data-driven governance are important instruments to improve efficiency, accountability, and community participation in the educational process. Meanwhile, the development of digitally competent human resources is a determining factor in the successful implementation of the policy.

Digital transformation also opens up opportunities for the creation of a more flexible, collaborative, and student-centered learning model. However, this change needs to be balanced with strengthening character education so that technology remains a tool that strengthens the moral and social dimensions of humans. Therefore, future education policies must be humanistic, participatory, and responsive to global change. Synergy between the government, educational institutions, and the community is the main prerequisite for realizing an inclusive, innovative, and competitive education system. With this foundation, education not only functions as a means of knowledge transfer, but also as a strategic vehicle in creating a generation that is intelligent, ethical, and ready to face the challenges of 21st-century civilization.

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