

Curriculum Transformation and Pedagogical Approaches: A Comparative Study of Education Systems in Indonesia and the Netherlands

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ABSTRACT

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Abstract

The education system is the main foundation in building quality human resources. This study aims to compare the transformation of the curriculum and pedagogical approaches in the Indonesian and Dutch education systems, in order to identify factors that influence the effectiveness of education in both countries. The method used in this study is a literature study with a qualitative approach, which analyzes various academic sources and related education policies. The results of the study indicate that there are three main factors that differentiate the education systems in the two countries, namely the flexibility and autonomy of the curriculum, the pedagogical approach, and social and cultural factors in the implementation of education. In the Netherlands, the education system is more flexible with a high level of autonomy for schools, while in Indonesia there are still obstacles in the implementation of educational decentralization. In addition, the pedagogical approach in the Netherlands is more based on student-centered learning, while Indonesia is still dominated by the teacher-centered learning method. Social factors such as parental involvement and infrastructure readiness also have a major influence on the success of education. As a recommendation, a strategy is needed to increase teacher capacity, apply technology in learning, and increase the role of the community in education in Indonesia. Thus, it is hoped that the Indonesian education system can be more adaptive to global challenges and produce graduates who are competitive at the international level.

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A. Introduction

The education system is the main foundation in building the quality of a country's human resources. Curriculum transformation and pedagogical approaches are central issues in efforts to improve the quality of education, especially in facing the challenges of globalization and technological advances. Indonesia and the Netherlands have interrelated educational histories, but have experienced different developments in the implementation of their education policies (Suratno, 2020). In Indonesia, the curriculum has undergone various changes, from the 1947 Curriculum to the Merdeka

Curriculum currently implemented. Each change aims to increase the relevance of education to the needs of society and the world of work. However, challenges in implementing the curriculum often arise, such as the readiness of educators, infrastructure gaps, and differences in understanding at the school level (Kemendikbud, 2022).

In contrast, the Netherlands implements a flexible curriculum-based education system that emphasizes school autonomy and competency-based learning. This approach allows schools to adjust the curriculum according to local and individual student needs, while still paying attention to national standards set by the government (Driessen & Dekkers, 2019). The differences in approaches between Indonesia and the Netherlands show that there are key factors that influence the effectiveness of the curriculum, such as the decentralized system, community involvement, and technology support. In the Netherlands, schools have the freedom to determine the most appropriate teaching methods, while in Indonesia there are still limitations in the implementation of school autonomy (Maulana et al., 2021).

In addition, pedagogy or learning approaches have also changed along with the development of educational science. The Netherlands has long implemented a project-based and collaborative learning model, while Indonesia is still trying to improve the application of more interactive learning methods in its curriculum (Koning et al., 2020). One of the main challenges faced by Indonesia in implementing a modern pedagogical approach is the readiness of educators. Many teachers are still accustomed to conventional lecture methods and have difficulty adopting a discussion-based and independent exploration approach that emphasizes student competence (Suryadi, 2021).

In this context, it is important to understand how the transformation of the curriculum and pedagogical approaches in both countries can provide valuable lessons for the development of a more effective education system. This comparative study aims to identify factors that contribute to the success and challenges in curriculum implementation in Indonesia and the Netherlands. By understanding the dynamics of change in the education systems of both countries, it is hoped that strategies can be found that can be adapted to improve the quality of education in Indonesia. This study also has the potential to provide insight for policy makers in designing more adaptive and future-oriented education policies.

Several previous studies have discussed the comparison of the education systems in Indonesia and the Netherlands. A study conducted by Maulana et al. (2019) examined the differences in pedagogical approaches between the two countries and found that the freedom of schools to develop their curriculum in the Netherlands contributed to improving the quality of learning. Meanwhile, research by Suratno (2020) highlighted the challenges faced by Indonesia in implementing a competency-based approach in its curriculum.

Another study by Koning et al. (2020) showed that the project-based approach implemented in the Netherlands was able to improve students' critical thinking skills. In contrast, in Indonesia, the learning method that is still dominated by memorization is one of the main obstacles to the development of student competencies. This shows the need for fundamental changes in the pedagogical approach in Indonesia to be more in line with the needs of the 21st century.

Although there have been many studies discussing the comparison of the Indonesian and Dutch education systems, there are still several research gaps. One of them is the lack of studies that discuss how social and cultural factors influence the effectiveness of curriculum transformation in both countries. This study attempts to fill this gap by exploring the role of these factors in the implementation of education policies. In addition, previous studies have focused more on aspects of curriculum policy and structure, but not many have examined their impact on student learning outcomes empirically. Therefore, this study aims to analyze how curriculum transformation and pedagogical approaches in both countries affect student learning outcomes and 21st century skills.

The novelty of this study lies in a more holistic approach in comparing the education systems in Indonesia and the Netherlands. By combining policy analysis, pedagogical practices, and social and cultural factors, it is hoped that more effective strategies can be found in adapting the best practices of the Dutch education system to the Indonesian context. Reality in practice, curriculum transformation in Indonesia often faces various obstacles, ranging from limited infrastructure to resistance from educators who are not fully ready for change. Meanwhile, in the Netherlands, a more

flexible education system allows for faster adaptation to developments and the needs of the labor market.

Therefore, a more focused strategy is needed in implementing curriculum changes in Indonesia, including increasing teacher capacity, providing adequate facilities, and increasing community involvement in the education process. Thus, the Indonesian education system can be better prepared to face global challenges and produce graduates who are competitive at the international level.

B. Method

This study uses a qualitative approach with a literature study method to analyze the transformation of curriculum and pedagogical approaches in the education systems in Indonesia and the Netherlands. Literature studies are used to collect and analyze data from various academic sources, including journals, books, and education policy reports. This method allows researchers to understand patterns, trends, and challenges in the implementation of education in both countries (Bowen, 2009).

The main sources used in this study include education policy documents from the Indonesian Ministry of Education, Culture, Research, and Technology (Kemendikbud, 2022), as well as academic publications on the education system in the Netherlands (Driessen & Dekkers, 2019). In addition, previous studies discussing curriculum and pedagogical approaches are also reviewed to gain insight into the factors that influence the effectiveness of education in both countries (Maulana et al., 2019; Suratno, 2020). In this literature study, content analysis techniques are used to identify key themes related to curriculum transformation and pedagogical approaches. The analysis was conducted by categorizing findings from various sources based on aspects of curriculum, pedagogy, and social and cultural factors that influence the education system (Krippendorff, 2018). With this method, the study can provide a deeper understanding of the differences and similarities between the Indonesian and Dutch education systems.

This study also adopted a relevant theoretical framework in its analysis. Constructivism theory is used to understand how the competency-based learning approach is applied in the Dutch education system and how this concept can be adapted in the Indonesian education system (Piaget, 1952; Vygotsky, 1978). In addition, the theory of educational decentralization is used to explore how the level of school autonomy affects the effectiveness of the curriculum (Fiske, 1996). To increase the validity of the findings, this study uses a source triangulation strategy by comparing various academic studies and policy documents from official institutions. This triangulation ensures that the information used in the study has a high level of accuracy and does not only come from one perspective (Patton, 2002).

Limitations in the literature study method are also taken into account in this study. One of the main limitations is the reliance on secondary data, which can lead to bias in interpretation if the sources used are not representative (Snyder, 2019). Therefore, this study attempts to integrate various sources from international and national journals to obtain a more objective picture of the education systems in Indonesia and the Netherlands. In its analysis, this study compares curriculum policies and pedagogical approaches in Indonesia and the Netherlands based on the main categories, namely curriculum flexibility, teaching methods, and infrastructure and human resource readiness. This approach helps in identifying factors that can contribute to improving the quality of education in Indonesia based on best practices applied in the Netherlands (Koning et al., 2020).

The results of the analysis in this literature study are expected to provide recommendations for policymakers in Indonesia in designing education policies that are more adaptive to global changes. By understanding how the Netherlands manages an education system based on school autonomy and competency-based learning, Indonesia can adopt elements that are appropriate to the local social and cultural context (Maulana et al., 2021). Overall, this research method is designed to provide a comprehensive understanding of how the education systems in Indonesia and the Netherlands have developed and the challenges faced in implementing education policies. By using a literature study approach, this study can present an evidence-based analysis that can be the basis for developing more effective and sustainable education strategies (Suratno, 2020).

Through this approach, the study is expected to contribute to academic discussions on education reform and help design more innovative and responsive education policies to the needs of

the 21st century. By understanding the dynamics of change in the education systems of both countries, this study can provide useful insights for academics, education practitioners, and policy makers in Indonesia (Suryadi, 2021).

C. Results and Discussion

1. Result

Based on the results of the literature study conducted, there are three main findings in the comparison of the education systems in Indonesia and the Netherlands, namely: (1) flexibility and autonomy of the curriculum, (2) pedagogical approaches and learning methods, and (3) social and cultural factors in the implementation of education. Each of these findings shows how the two countries have different strategies in managing education and their impact on the quality of learning.

a. Flexibility and Autonomy of the Curriculum

One of the most striking differences between the education systems in Indonesia and the Netherlands is the level of curriculum flexibility. In the Netherlands, the education system is decentralized, where schools have the freedom to determine the curriculum that suits the needs of their students and communities. However, there are still national standards set by the government as the main guideline (Driessen & Dekkers, 2019). In contrast, in Indonesia, the curriculum is more centralized, although decentralization efforts have begun through the Merdeka Curriculum. However, the implementation of school autonomy still faces various challenges, especially in teacher readiness and resource gaps in various regions (Ministry of Education and Culture, 2022). This causes a gap in the quality of education between schools in urban and rural areas.

Research conducted by Maulana et al. (2021) shows that the freedom to determine a more flexible curriculum, as implemented in the Netherlands, has a positive impact on creativity and innovation in the learning process. Meanwhile, in Indonesia, although the Independent Curriculum provides room for innovation, many schools still have difficulty adapting to changes due to lack of training and supporting infrastructure.

In addition, the education system in the Netherlands provides space for schools to adapt to the needs of industry and the world of work. For example, vocational schools (VET) in the Netherlands can adjust their curriculum based on economic trends and local workforce needs (Koning et al., 2020). This is different from Indonesia, where alignment between education and the world of work is still a major challenge.

b. Pedagogical Approach and Learning Methods

Another difference lies in the learning methods applied. In the Netherlands, the student-centered learning approach is the main principle in learning. Students are encouraged to be more active in exploring and solving problems through project-based and collaborative learning (Koning et al., 2020). This approach has been proven effective in improving students' critical and creative thinking skills.

In contrast, in Indonesia, the learning method is still dominated by the teacher-centered approach, where teachers use more lecture and memorization methods. Although there have been efforts to encourage more interactive learning methods through the Independent Curriculum, many teachers still have difficulty implementing it due to habit factors and limited training (Suryadi, 2021).

Research conducted by Suratno (2020) revealed that students in the Netherlands have a higher level of learning independence compared to students in Indonesia. This is due to the exploration-based learning method that allows students to take an active role in the learning process. Meanwhile, in Indonesia, the education system still tends to emphasize exam results as an indicator of success, which hinders the development of analytical and innovative skills in students. In practice, schools in the Netherlands implement a learning system that is more adaptive to the individual needs of students. For example, the use of technology in learning has become an integral part of the education system, allowing students to learn according to their own rhythm and learning style (Maulana et al.,

2019). In Indonesia, although technology has begun to be introduced in learning, its use is still limited and depends on the school facilities available.

In addition, the interdisciplinary approach to learning in the Netherlands also helps students understand concepts more broadly and applicatively. For example, subjects such as science and mathematics are often taught in real-life contexts, which helps students understand the application of theory in everyday practice (Koning et al., 2020). Meanwhile, in Indonesia, subjects are still taught separately without much interconnection between disciplines, which causes students' understanding to be more compartmentalized.

c. Social and Cultural Factors in the Implementation of Education

Social and cultural factors also play a role in determining the effectiveness of education implementation in both countries. In the Netherlands, the education system has strong support from the community and has a high learning culture. Parents and the community have an active role in the education process, both in decision-making at school and in supporting learning at home (Driessen & Dekkers, 2019). On the other hand, in Indonesia, parental involvement in education is still relatively low, especially in remote areas. Many parents still assume that education is entirely the responsibility of the school, so they are less supportive of learning outside the school environment (Suratno, 2020).

In addition, cultural differences in valuing learning autonomy also affect the effectiveness of learning. In the Netherlands, students are accustomed to thinking critically and independently in learning from an early age. On the other hand, in Indonesia, the hierarchical culture in education often makes students more passive and tend to follow teacher instructions without asking many questions or criticizing the material given (Suryadi, 2021).

The economic aspect is also a factor that differentiates the two education systems. In the Netherlands, education is funded by the government and access to quality education is relatively evenly distributed throughout the region. Meanwhile, in Indonesia, there is a significant disparity in access to education, especially between urban and rural areas (Ministry of Education and Culture, 2022). Differences in policy support also impact the effectiveness of the education system. In the Netherlands, education policy is sustainable, with long-term planning that takes into account technological developments and industry needs. Meanwhile, in Indonesia, changes in education policy often occur in a relatively short period of time, leading to inconsistencies in the implementation of curriculum policies (Maulana et al., 2021).

In the context of globalization, the challenges faced by the two countries are also different. In the Netherlands, the main challenge is how to adapt education to increasingly rapid technological developments, while in Indonesia, the main challenge is how to improve the quality of education evenly across the region (Koning et al., 2020).

2. Discussion

Based on the research results that have been presented, there are three main findings that are the focus of the discussion, namely curriculum flexibility and autonomy, pedagogical approaches and learning methods, and social and cultural factors in the implementation of education. These three aspects have a crucial role in determining the effectiveness of the education system, especially in facing the challenges of globalization and technological developments. In discussing these findings, this study uses two main theories, namely the Theory of Educational Decentralization (Fiske, 1996) and the Theory of Constructivism (Piaget, 1952; Vygotsky, 1978).

a. Curriculum Flexibility and Autonomy

Curriculum flexibility is the main factor that differentiates the education systems in Indonesia and the Netherlands. The Theory of Educational Decentralization put forward by Fiske (1996) emphasizes that a more flexible and decentralized education system can increase the effectiveness of learning because it provides space for schools to adapt the curriculum to local needs. This can be seen in the Dutch education system, where schools have broad autonomy in designing the curriculum, while still following national standards (Driessen & Dekkers, 2019).

In contrast, the Indonesian education system is still centralized, although the Independent Curriculum has given schools more freedom. However, the main challenge in implementing this autonomy is the readiness of schools and educators to adapt the curriculum to local needs (Kemendikbud, 2022). In accordance with the findings of Maulana et al. (2021), the success of educational decentralization depends on continued policy support and the availability of adequate resources.

b. Pedagogical Approach and Learning Methods

The pedagogical approach applied in the education system is heavily influenced by the Constructivism Theory developed by Piaget (1952) and Vygotsky (1978). This theory states that effective learning occurs when students actively construct their own knowledge through interaction with the environment and direct experience. In the Netherlands, project-based and collaborative learning systems allow students to develop critical and creative thinking skills (Koning et al., 2020).

In contrast, in Indonesia, the learning method is still dominated by the teacher-centered approach, which emphasizes lectures and memorization. This hampers the development of students' analytical skills, which should be the focus in the modern education era (Suratno, 2020). In accordance with Vygotsky's (1978) view, effective learning must involve scaffolding, where teachers act as facilitators in helping students build their own understanding. Therefore, intensive training is needed for teachers to be better prepared to implement a student-centered learning approach as is done in the Netherlands (Suryadi, 2021).

c. Social and Cultural Factors in the Implementation of Education

Social and cultural factors play an important role in the effectiveness of the education system. Vygotsky's (1978) Social Constructivism Theory emphasizes that social interaction has a major influence on students' cognitive development. In the Dutch context, a strong learning culture and parental involvement in education are the main factors supporting the success of their education system (Driessen & Dekkers, 2019).

In Indonesia, community involvement in education is still relatively low, especially in rural areas. Many parents still consider education to be the full responsibility of the school, without active participation from the family (Suratno, 2020). In fact, according to the findings of Maulana et al. (2021), the involvement of parents and the community in the education process can increase students' motivation to learn and help schools implement a curriculum that is more relevant to local needs. In addition, the education system in the Netherlands is more adaptive to technological developments, while in Indonesia there are still many schools that face limited digital infrastructure (Kemendikbud, 2022). Based on the Theory of Technology in Education by Koehler & Mishra (2009), the integration of technology in learning can increase the effectiveness of education by providing wider access to learning resources. Therefore, increasing access to educational technology is an important strategy in improving the quality of education in Indonesia.

D. Conclusion

From the results of this study, it can be concluded that curriculum flexibility, interactive pedagogical approaches, and socio-cultural factors are three key elements in the effectiveness of the education system. The Netherlands has successfully implemented a more flexible and competency-based education system, while Indonesia still faces various challenges in implementing changes in the curriculum and learning methods.

To improve the quality of education in Indonesia, a more comprehensive strategy is needed, including increasing teacher capacity, more effective decentralization of education, and increasing community involvement in education. By adopting the best practices of the Dutch education system and adapting them to the social and cultural context of Indonesia, it is hoped that the education system in Indonesia can be better prepared to face global challenges.

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