

Comparison of Singapore and Japan Curriculum in Improving the Transformation of

the Education System in Indonesia

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Abstract

This study analyzes the comparative curriculum of education in Singapore and Japan and its implications for the transformation of the education system in Indonesia. Singapore emphasizes the development of critical thinking skills and technology integration through the STEM curriculum, while Japan focuses on moral and character education involving community participation. This study recommends adopting the best elements of both approaches to improve the quality of education in Indonesia, including the development of competency-based curriculum, strengthening character education, and improving teacher professionalism by involving all stakeholders, it is hoped that Indonesian graduates can compete globally and make a positive contribution to society. Keywords: Curriculum, Educational Transformation, Character Education

1. Introduction

In today's digital era, the education system implemented by a country reflects efforts to prepare the next generation. Various efforts to renew and improve the quality of education continue to be carried out by governments in various countries including Indonesia. The education system is one of the main foundations in national development. In an effort to improve the quality and reputation of education in Indonesia, education is one of the main pillars in the development of a country. The National Education System is defined as a deliberate effort to prepare students through the process of guidance, teaching, and/or training in order to prepare them for future roles. (Subekti, 2018). In the context of Indonesia, improving the transformation of the education system is very important to face global challenges. Two countries that are often used as references in the development of education are Singapore and Japan. This article will discuss a comparison of the curriculum of the two countries and its implications for the education system in Indonesia. As an effort to improve the quality of education systems (Hambal & Khoiruddin, 2020). Several countries that are considered superior in the field of education such as Japan and Singapore. Can be used as examples in studies for other countries in order to improve the quality of their education systems.

Singapore is known for its innovative approach to education, which integrates technology and emphasizes the development of critical thinking and problem-solving skills, (Sa'adah, 2020), saying that the concept of "*thinking schools*" relates to school education that aims to instill independence and critical thinking skills in students, while "*learning nation*" aims to foster continuous learning habits in line with the challenges of change in the era of globalization and information. Singapore also implements a STEM-based learning system where there are students who are 15 years old in Singapore who have ranked highest in their fields of expertise, namely mathematics, science and reading a text (OECD, 2019)





therefore, achievements in mathematics and science have sparked interest and critical thinking skills to foster STEM development very effectively, thus improving education in Singapore even further (Yuliana et al., 2023).

Singapore schools top the list of the world's best education systems with excellence in mathematics, science and literacy thanks to the implementation of a consistent curriculum and teaching by quality teachers, as the government expects Singaporean teachers to play a different role. Their role is to participate in nation building by dedicating themselves to the specific needs of the nation related to social stability and economic development As a developed and innovative country with an interesting mix of cultures (Ro, 2020). English as the *de facto national language* in Singapore allows people from various ethnic backgrounds to communicate effectively. In addition, there is no racial discrimination in the education system in the country, where every student regardless of race or ethnicity, gets equal access to quality education.(Aini, n.d.), dimana All students can apply for financial aid according to their living expenses.

Japan is known for its project-based approach and strong community involvement in the education process. The Japanese education system provides its people with access to modern knowledge values while maintaining and managing the core values *that* shape the character of the Japanese nation. Because education should not only educate students to become smart and knowledgeable generations, but also to have good character, morals and manners. (Alfarisy et al., 2021). This makes Japan a developed nation with strong character. The uniqueness of education in Japan lies in the high emphasis on moral education, which is rooted in the culture of Japanese ancestors who highly value others as the core of life(Widisuseno, 2019).

Education in Indonesia is considered to be very conservative, lacking in innovation, and has not yet reached an innovative level. Significant improvements are needed in the Indonesian education system, both in terms of curriculum, teacher competence, and the provision of facilities that are evenly distributed throughout the country. Meanwhile, the Japanese education system also pays attention to affective, cognitive, and psychomotor aspects. Japan emphasizes politeness, etiquette, discipline, and instilling values from an early age. Report card and exam scores are not considered too important, only used for selection to enter college, high school, or junior high school (Montanesa & Firman, 2021).

These two countries are often used as references in efforts to improve the education system in various countries. It is important to compare the Singapore and Japanese curricula to understand the best practices that can be adopted and implemented in Indonesia. Through this comparison, it is hoped that effective strategies can be found to improve the quality of education in Indonesia, so that it can achieve a better reputation in the international arena. In Indonesia, the implementation of the Merdeka Curriculum aims to provide flexibility in the learning process and its main focus is to provide more space for innovation, character development, and strengthening aspects of competency needed in the world of work. The goal is to create a curriculum that is more dynamic, relevant, and able to respond better to changes in the needs of society, industry, and global developments.(Lahabu, 2024).

We are currently in the era of technology, where all aspects of life are knowledge-based, which if applied comprehensively will result in a significant increase in knowledge, supported by media and technology. Therefore, education must be able to produce human resources with complete competencies. On the other hand, the Indonesian education system continues to face changes, especially in terms of curriculum, to answer the challenges of the Industrial Revolution 4.0 and Society 5.0 eras, with the aim of creating a quality young generation in the global arena. (Fitria, 2024).

However, challenges such as the gap in access to technology and differences in teacher quality across regions remain issues that need to be addressed urgently. Singapore and Japan, with their best practices, provide inspiration on how the curriculum can be adapted to meet the diverse needs of students and improve skills that are relevant to the demands of the times. One of the key factors in the success of the education systems in Singapore and Japan is the serious attention to teacher professional development. Continuous training programs based on real needs in the field have proven effective in improving the quality of teaching. Indonesia can adopt a similar approach to ensure that teachers across regions have adequate skills to implement the curriculum well.

To improve the quality of Indonesia's education system, the government can take inspiration from the approaches implemented by Singapore and Japan, especially in developing competency-based curriculum and strengthening character education. Integrating technology into learning as implemented





in Singapore can be a first step to addressing the education gap. In addition, implementing moral and character values in the curriculum, as implemented in Japan, can be the basis for forming a generation that is not only academically intelligent but also has strong morals and ethics. In Japan, schools, communities, and family environments are responsible for each other for the success of moral education. To build character education in school-age children, these three components work together and are interconnected.(Arrifah Putri Nadila & Abdal Malik Fajar Alam, 2024). It is clear that it is not only schools that are responsible for building noble characters for their children in school, but schools also teach discipline and cooperation through formal education, and families play a role in providing moral and ethical foundations. A comparison of the education systems of the two countries can be an inspiration to improve the quality of education in Indonesia to be able to answer the demands of the times.

Comparing the education systems in Singapore and Japan provides a valuable perspective for Indonesia. By integrating relevant best practices and making adjustments to local conditions, Indonesia can achieve substantial improvements in the quality of education. This step is very appropriate in preparing the younger generation who are not only ready to face global challenges, but also able to contribute positively to the development of the nation and humanity in general. Therefore, this comparative study is very important to help the planning of basic education in Indonesia so that it can be even better by looking at good examples from Singapore and Japan both in terms of education policy and practice.

Based on this comparability, this research entitled "Comparison of Singapore and Japan Curriculum in Improving the Transformation of Education System in Indonesia" was conducted to provide an overview of the latest curriculum from these countries to help the development of education in Indonesia.

2. Method

This study uses a comparative descriptive design and a literature study method that aims to collect and analyze information related to the education curriculum in Singapore and Japan and its implications for the transformation of the education system in Indonesia. In this method, researchers collect data from relevant sources and can be academically accounted for their validity and validity as scientific sources such as books, journals, research reports, and other credible materials based online. (Zaluchu, 2021).To obtain relevant data, researchers conduct searches through several academic platforms, such as Google Scholar, Crossref, Garuda and DOJA which provide access to various scientific journals. In addition, researchers also use Semantic Scholar to expand the search reach and find quality articles. The sources of literature used as references in this study are SINTA and SCOPUS-based journals, which are known to have high quality standards. With a literature study approach, researchers not only aim to collect data, but also to provide an in-depth analysis of how the curriculum in both countries can be adapted to improve the education system in Indonesia. This research design is expected to make a significant contribution to the understanding and development of education policies in the country. Thus, this research is expected to be a basis for developing more effective and relevant education policies, as well as providing a real contribution to improving the quality of the education system in Indonesia.

3. Results and Discussion

Singapore and Japan's Educational Approach to Human Resource Development

Approach education in Singapore and Japan has become reference for many countries in effort increase quality source Power human (HR). So that important For understand how each approach can give contribution to human resources development :

Approach education Singapore in human resources development

In research this, was found that system education in Singapore and Japan offer a different approach However own similarity in effort increase quality source Power human. Singapore supports creative learning, sharpening ability think critical and cooperative, as well as prepare student For facing an increasingly digital and connected future (Suratno & Sari, 2022). Singapore implements approach development - oriented education integrating skills technology in learning, This matter make curriculum





in Singapore focuses on subjects STEM (Science, Technology, Engineering, and Mathematics) subjects , with support infrastructure strong education and continuous teacher training. STEM education in Singapore has develop with fluent with the amount enthusiasts, especially in policies and practices that are consistent produce amazing results normal. Key Singapore's success in education that is invest in the future of the country source Power man through system designed education For prepare generation successor a quality nation (Fitria, 2024).

Approach education Japan in human resources development

Japan prioritize education based on moral values and character, where each component in society , including family and community, play a role active in to form character student. (Arrifah Putri Nadila n.d. 2024) say character building Japan, which is known as Doutoku-kyouiku, spread all over school, with focus on understanding guiding values development character. In Japan, schools to plant moral education through various field study, namely awareness self, relationship with other people, relationships with groups and communities, as well as connection with Implementation moral education is not quite enough answer collective which includes : school, family and community(Prakoso et al., 2023). The main purpose implementation moral education in modern schools in Japan is For cultivate respect to life, uphold tall dignity, enhance quality culture traditional, upholding state democracy, advancing world peace, growing independence, and uphold morality. Morality has become injected foundation in a way on purpose to children in Japan. Although There is One eye lesson specifically in schools that teach children about morality, these moral values integrated to in all eye lessons and life daily (Septiani, n.d. 2024). Strong moral education and attitude discipline become foundation main in system education Japan . Both countries also provide attention big on improvement teacher professionalism through ongoing training, so that teachers have appropriate competency with need modern education.

Difference Singapore and Japan Curriculum

Curriculum in Singapore and Japan own unique characteristics and different approaches . Here is a number of aspect important that can compared to :

Structure Singapore and Japan Curriculum

The curriculum in Singapore is designed with structured and results - oriented approach . There is clear division between education elementary , middle , and high school . Curriculum emphasize on mastery eye core lessons such as Mathematics , Science, and English , with emphasis on implementation practical . The purpose of curriculum Education in Singapore forms a cultured Singaporean society tall in matter ethics , discipline and daily social behavior , as well as develop creativity child educate specifically field technology information (Nukman, M. 2024).

In Japan , the curriculum nature more holistic and encompassing education strong character . Subjects No only focuses on academics , but also on development values social and skills life . Education in Japan own a more approach integrated , where the lessons connected with life everyday . Curriculum in Japan designed For give student various experience meaning that can increase ability think logical and creative they (Lestari, 2024).

Singapore and Japan Teaching Methods

Teaching methods in Singapore are often based on a "*student-centered*" approach, where students pushed For participate active in the learning process. Use technology in learning is also given great attention, with Lots school apply method learning based on projects and collaborative. System reform education which emphasizes ability think and be critical students who are given the name "*Thinking School*". In addition there is also a concept education that emphasizes education sustainable for all over students in Singapore with hope forward can adapt with developments over time Name *Learning Nation* (Harumawati, n.d. 2024).

Teaching methods in Japan emphasize on development character and morals of students. Concept moral education, or *Doutoku-Kyouiku*, becomes the main pillar in curriculum, with emphasis on values like discipline, responsibility answer, and work hard. Character education this also includes habituation character everyday, such as leave school with independent, say greetings, behave polite polite, eat





Afternoon together, and work The same with friends in class. In addition, the curriculum education basic in Japan integrate values value differences and tolerance, which aims for students to can life harmonious in diverse society. (Nisak et al., 2022).

Evaluation and Assessment in Singapore and Japan

System evaluation or evaluation in Singapore using *The School Excellence Model* (SEM), which is an assessment model self school . SEM adapted from various quality models used by organizations business , such as *The European Foundation of Quality Management* (EFQM), *The Singapore Quality Award* (SQA), and *The American Malcolm Baldrige National Quality Award model* (MBNQA). All levels of education in Singapore are included school basic , intermediate , and advanced , requested For do evaluation self use this SEM concept (Nurasiah , N. 2022), as well as report the result as part from effort For increase quality education . This model emphasize on approach data- based , where schools expected For identify strengths and weaknesses they through a systematic reflection process . Through SEM , schools can set clear objectives , develop plan repairs , and involves all over stakeholders stakeholders , including teachers, students , and parents , in the evaluation process . With Thus , SEM does not only functioning as tool assessment , but also as booster culture repair sustainable in the environment school .

In Japan No own exam nationally determined graduation students . Graduation from junior high school and high school are based on assessment cumulative performance throughout year academic , which includes quiz daily , activities extracurricular , test intermediate (UTS), and tests end (Hamidah et al., 2021). System evaluation emphasize view holistic about performance students . Approach This allow better understanding comprehensive about ability and progress student from time to time , than only focus on one exam . System evaluation prioritize development thinking logical and ability breakdown problem . Focus This reflected in method teaching and philosophy education in a way overall , which aims For grow skills think critical and creative among student .

Transformation Towards Global Based Indonesian Education

Research result This show that Indonesia can adopt practices best from Singapore and Japan For strengthen system his education, especially in matter implementation technology, development characters, and improvements teacher quality. With use technology, transformation education in Indonesia is expected can produce graduates who do not only speak in a way academic but also have character and be ready face global challenges . Transformation curriculum aiming For improve the learning process, make it more relevant with need students and hope society. Emphasis on learning based on skills and approaches scientific in The K-13 curriculum is response to need student For develop skills think critical and leadership (Aziz, FZ, 2022). Implementation Independent Curriculum in Indonesia, which provides flexibility in learning, need customized more carry on with practice from these two countries so that the system Indonesian education is more relevant with need society, industry , and global development . In addition, the Independent Curriculum must more emphasize use technology in research in Indonesia for support more modern and inclusive education, as is done in Singapore. This is important For increase ability student in adapt self with the digital era and overcome problem limitations access education, especially in the regions rural. Students can to obtain relevant skills in modern society, such as digital literacy and thinking critical, which is highly valued in the place global work, through meaningful access to technology.

moral foundation of Indonesian students can reinforced with take inspiration from view Japan about education character . education character often integrated to in curriculum through religious education , as seen in entry eye religious lessons in schools . This reflects the country's emphasis on moral values and heritage culture , which is aspect important from philosophy education . On the other hand , Japan No enter religious education in curriculum nationally , except in schools run by religious communities , shows a different approach to education character (Wahyudin, 2021). Learning character since early can give birth to generation that does not only well-mannered noble , but also disciplined , careful , and ethical as well as have a sense of responsibility high responsibility towards others. So that we to obtain maximum results are required Work The same between school , friends , and society . As is the case in Japan . The values such as manners, discipline , and responsibility answer social must become part from curriculum in Indonesian schools so that they can develop human being who has strong character and





gives useful contribution for all over layer society. With blend system Singapore and Japan education , Indonesia can develop system more education spacious and flexible as well as fulfil condition international . This is very important For create an empowered generation competitive , good in matter quality academic and also personal , so that can compete in a way international and play a role active in development nation . With combining Singapore and Japanese education models , reforming the education system Indonesian education can become effective way For creating a better future quality for generation nation . Education reform in Indonesia has become significant focus since state independence , which aims For overcome various challenge in system education , there is some points are context history , challenges decentralization , change curriculum , involvement stakeholders interests , implementation system zoning , quality education , and global (Wahyudi, M. A., & Lutfi, A. (2019).comparisons Implementation practice best from these two countries , such as integration technology in learning and emphasis on development character , can help create environment more education innovative and comprehensive . In addition , the increase teacher competence through training sustainable and structured evaluation will ensure that teaching in Indonesia is in line with global standards .

Through a comprehensive approach this , it is expected student No only own the necessary knowledge and skills , but also be able to adapt with fast to changing times and global challenges . With Thus , Indonesia can produce graduates who do not only Ready facing the world of work , but also becoming a capable leader give contribution positive for society and state. collaboration between government , institutions education and society are very necessary in implement this reform , so that all element can synergize in create system quality and relevant education with needs of the times. Importance collaboration This No only lies in the implementation more curriculum good , but also in build awareness collective about values education . With involving various parties , including parents , communities , and sectors private , we can create ecosystem supportive education development holistic students , for example , mentorship and work programs The same between school and industry can give student experience valuable practical , strengthening skills that have been studied in class .

4. Conclusion

Study This analyze comparison curriculum education in Singapore and Japan as well as the implications for transformation system education in Indonesia. Research results show that Singapore emphasizes development skills think critical and integration technology through STEM curriculum, while Japan focus on moral and character education that involves participation community . Both approach This each other complete and can adapted For increase quality education in Indonesia. It is recommended that Indonesia integrate elements best from both countries . The government need strengthen policy supportive education development curriculum based on competence and technology, as well as increase teacher professionalism through training sustainable . In addition , the involvement of parents and the community in the educational process is very important For to form character students . With adopt practice best from system Singapore and Japan education , Indonesia is expected can produce competent graduates in a way academic , have strong moral values , and ready face global challenges . Steps This important For create generation that does not only empowered compete at the level international , but also contributes positive for society and nation .

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