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RESEARCH ARTICLE

REFLECTION ON THE LATEST PISA RESULTS OF INDONESIA

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Abstract

In order to improve the quality of education, the Indonesian education system faces tremendous obstacles. Poor scores in reading, mathematics, and science on the most recent PISA indicate problems with teaching quality, infrastructure, facilities, curriculum, and assessment processes. Indonesia has a traditional approach to education that emphasizes rote learning and memorization, and the language of instruction is mainly Indonesian. To increase the quality of education, the government must invest more in teacher education programs, infrastructure and facilities, and curriculum and assessment system change. By providing better training and resources for teachers, modernizing school buildings and equipment, and incorporating new subjects and skills into the curriculum, Indonesia can give students more options and prepare them for the challenges of the global economy.

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Introduction:-

Every three years, the Programme for International Student Assessment (PISA) examines the achievement of 15-year-olds in reading, math, and science literacy. PISA aims to provide a global comparison of education systems and assist in making education policy decisions. PISA evaluates students' subject-matter knowledge and their ability to apply that information to real-world situations and think critically. Students' capacity to apply their knowledge and skills to solve issues in real-world scenarios is viewed as a more accurate indicator of their ability to succeed in today's global economy.

In addition to assessing student performance, PISA collects data on various other criteria associated with student achievements, such as students' backgrounds, the educational methods of their schools, and their families socioeconomic situation (Donne, 2014). This information is used to assist policymakers in identifying variables contributing to international variations in student accomplishment and developing measures to improve education systems. According to Andreas Schleicher, Director for Education and Skills at the Organisation for Economic Co-operation and Development (OECD), which administers the PISA assessment, "PISA is about gauging not only student achievement but also the quality, equity, and efficiency of education systems." (Schleicher, 2012). PISA gives politicians and educators around the globe helpful information on improving education systems and preparing students for the challenges of the twenty-first century.

PISA has also been shown to be a very good predictor of how the economy will do in the future. According to a study by the Peterson Institute for International Economics, a one-point rise in a country's PISA score was connected

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with a 2.5% increase in GDP per capita over 30 years (Hanushek et al., 2017). This study shows that improving schools and students' performance, as measured by PISA, can have big long-term economic benefits.

Since 2000, Indonesia has participated in the Programme for International Student Assessment (PISA), a triennial survey that examines the reading, math, and science skills and knowledge of 15-year-old pupils. The Organization for Economic Cooperation and Development (OECD) conducts PISA, and the most recent results were announced in 2019. In the most recent PISA survey, Indonesia scored the lowest among participating nations (OECD, 2019).

China and Singapore are recognized as high-performing countries among the 2018 PISA participants. However, Indonesia's performance has been relatively weak. China has continuously rated among the highest-performing nations on the PISA, placing first in mathematics, second in science, and tenth in reading. However, it is essential to note that the ratings are not typical of the entire nation, as the evaluation only included four provinces. Singapore also ranks highly in PISA, second in reading, third in mathematics, and fourth in science. Singapore's education system has been highly recognized and praised for its emphasis on quality instruction and learning.

On the other hand, China and Singapore have always done better on the PISA than Indonesia has. Indonesia rated 73rd in reading, 72nd in mathematics, and 71st in science in the 2018 PISA. Despite this, Indonesia has achieved considerable strides in education in recent years, demonstrating a solid commitment to improving access and quality of education throughout the country. While China and Singapore have continuously rated among the top-performing nations in PISA, Indonesia's performance has been somewhat worse.

These results indicate that Indonesia still confronts substantial obstacles in its efforts to enhance the quality of its education system. This article aims to examine Indonesia's most recent PISA results, identify the critical reasons that lead to the country's poor performance in the survey, and offer suggestions for improvement.

Background:-

Throughout the past two decades, the Indonesian education system has seen substantial changes, including decentralization, the adoption of a competency-based curriculum, and greater funding for education. Despite these efforts, Indonesia's education system must catch up to other regional nations.

Many issues have been identified in prior research as contributing to the low quality of Indonesia's educational system. The low quality of teachers is one of the primary issues. According to a study by Huang and Revina (2020), the quality of teachers in Indonesia could be better, and many teachers need more qualifications and training to instruct students effectively. Another study (Loeneto et al., 2020) revealed the inadequate quality of Indonesia's teacher education programs.

Inadequate infrastructure and utilities in schools contribute to the low quality of Indonesia's education system (BPS, 2020). Several studies (WorldBank, 2022, Karon et al., 2017) have found that many schools in Indonesia lack essential facilities such as clean water and adequate sanitation, which negatively affect the health and well-being of students. In addition, other studies found that many schools lack sufficient teaching materials and apparatus, such as textbooks, computers, and laboratory equipment, which hinders students' learning (Mardita, 2019; Rohiyatun, 2019; Murniarti et al., 2016).

Results:-

Teacher Quality and Quantity

With the Teacher Professional Education (TPE) program, the Indonesian government has made an official effort to improve the quality of teachers. In 2007, the first TPE was put in place to improve teachers' productivity and well-being. The goal of this program is to improve the skills of Indonesian teachers by giving them more training and helping them grow as professionals. The Ministry of Education and Culture implements the initiative in collaboration with universities and other educational institutions. TPE provides teachers with various courses and training programs, including pedagogical training, subject-specific training, and leadership development. After passing the TPE, the teacher will receive a certificate indicating that he or she is a professional educator and eligible for a teaching allowance in addition to the base salary.

In Indonesia, the number of educators is relatively high. However, more is needed to educate students in institutions nationwide. The Indonesian Ministry of Education and Culture (Kemendikbud) reports that there are presently

3,017,296 teachers in the country. There are 2,114,765 teachers in public schools. In the meantime, there were 902,531 teachers in private schools. A total of 1,174,377 certified public and private school teachers are civil servants. Then, 217,778 teachers who are not civil servants have been certified (Siedoo, 2019). Based on this data, only about 46% of teachers in Indonesia are certified as professional teachers.

The low salaries in Indonesia also contribute to the low quality of teachers there as well. Teachers are among the lowest-paid professionals in Indonesia (OECD, 2015). The Organization for Economic Co-operation and Development (OECD) reports that Indonesia spends approximately 3.6% of its gross domestic product (GDP) on education, which is less than the average for OECD countries (OECD, 2014). This makes it difficult for teachers to provide a quality education and hinders their motivation to enhance their teaching abilities.

The low pay of teachers in Indonesia is also a major problem. In 2019, the average monthly salary of a primary school teacher in Indonesia was approximately IDR 2.8 million (approximately USD 190), which is substantially less than the national minimum wage of IDR 4.3 million (approximately USD 290) per month. The report also noted that teacher salaries in Indonesia are among the lowest in ASEAN (OECD, 2019; Ventura, 2021).

Infrastructure and Facilities

Inadequate infrastructure and facilities in schools also contribute to the lower quality of Indonesia's educational system. According to a report by UNICEF EAPRO (2016) and Karon et al., (2017), approximately 40% of Indonesian schools lack adequate water, sanitation, and electricity. This means that a significant number of students in Indonesia attend schools without adequate sanitation or clean water, which can contribute to health problems and hinder their ability to learn. In addition, a lack of electricity can make it difficult for schools to utilize technology and other resources that require electricity, further limiting educational opportunities for students.

As of 2022 (Kemendikbud, 2022), the Indonesian Ministry of Education and Culture reported that only 47 percent of schools in the country have adequate classrooms. In a survey conducted by the Indonesian Teachers Association (Iswara, 2020), more than 60 percent of teachers reported that their schools lacked adequate facilities, including classrooms, libraries, laboratories, and sports facilities. A school environment that is conducive to teaching and learning also requires adequate physical infrastructure and facilities, including structures, grounds, heating and cooling systems, lighting and acoustic systems (Conlin & Thompson, 2017; Gunter & Shao, 2016). Teachers require educational materials, such as textbooks, computers, library materials, and laboratories, in order to provide current, challenging, and student-centered instruction (Oakes & Saunders, 2004; Murillo & Román, 2011).

This highlights the critical need for educational infrastructure improvements in Indonesia. Without adequate classrooms and instructional material, students may be forced to study in congested spaces and opportunity, which can have a negative effect on their educational experience. This means that many schools in Indonesia do not have the resources necessary to provide students with a comprehensive education.

Curriculum Implementation

Implementation of curricula in Indonesia still needs to overcome numerous obstacles. This paper will examine the process of translating the written curriculum into the implemented curriculum. The curriculum for 2013 is designed to equip students with the skills necessary to acclimate to the era of globalization and the rapid development of information technology. The implementation of scientific learning is not optimal (Nurhasnah et al., 2022; Telaumbanua, 2018), and there are still numerous problems with textbooks (Telaumbanua, 2018).

Some researchers discovered that the content of school textbooks needed to be more consistent with the curriculum design (Ramda, 2017; Amalia, 2017). Students may receive relevant and sufficient information if the textbook aligns with the curriculum. This problem can disrupt the learning process and lead to comprehension disparities among students. Students may feel frustrated or dissatisfied if they perceive that the textbook needs to contain more information or match the curriculum's expectations. This can diminish their motivation and desire to learn. In addition, it can lead to a disparity between what is taught and what is assessed. This can make it difficult to assess student comprehension accurately. From the perspective of the teacher, this can increase their workload. Teachers may need to spend additional time adapting or locating alternative curriculum-aligned resources.

Teachers' suboptimal application of scientific learning is due to a need for more quality and competence of human resources in curriculum support (Supriadi et al., 2023; Haq & Murdiono, 2019). Human resources less qualified and

competent in curriculum assistance may need to thoroughly comprehend the curriculum's concepts and goals. This can result in ineffective implementation of the curriculum, as the institution may need help to adapt appropriate teaching methods or convey material to students effectively. Then, more qualified personnel in curriculum support may need help to identify and comprehend the unique requirements of each student. Consequently, the applied curriculum may need to optimally meet the students' learning requirements regarding content, approach, and learning methods. It should also be noted that a lack of quality and competence in curriculum support personnel can harm student academic achievement. The ability of students to achieve the anticipated level of comprehension and achievement can be hindered by human resources that cannot effectively convey material, manage classes, or provide adequate guidance.

Conclusion:-

The most recent PISA results for Indonesia indicate that the nation still confronts significant obstacles in its efforts to improve the quality of its education system. The low scores in literacy, mathematics, and science suggest that Indonesian schools need help with the quality of instruction, infrastructure, facilities, and curriculum and assessment systems. Substantial investments are required in numerous areas to enhance the quality of education in Indonesia.

Increasing teacher education programs can aid in enhancing the quality of instruction in schools. This may include providing teachers with improved training and resources, enhancing the recruitment process for new teachers, and incentivizing ongoing professional development for existing teachers.

Second, investing in infrastructure and facilities is necessary to create a conducive learning environment. This may involve enhancing school structures, classrooms, and equipment, providing internet access, and supplying sufficient resources such as textbooks and educational materials.

A well-rounded education that prepares students for the challenges of the global economy can be achieved by reforming the curriculum and assessment systems. This may entail updating the curriculum to include new subjects and skills, implementing standardized assessments to monitor student progress, and ensuring that the curriculum meets industry requirements. To support the three items mentioned above, it is necessary to consider the subsequent steps and the potential obstacles that will be encountered.

1. Increase government education expenditures

Approximately 20% of the Indonesian government's budget is allocated to education. This sum could be increased to provide schools with additional resources and infrastructure, such as textbooks, technology, and well-trained teachers. Education is a crucial factor in a nation's development, and increasing government spending on education is necessary to enhance education quality. The government of Indonesia currently allocates roughly 20% of its budget to education. There may need to be more to meet the nation's expanding population and education system requirements. By increasing government spending on education, schools can receive more resources and infrastructure, such as textbooks, technology, and well-trained instructors. However, there may be opposition from other government sectors that believe their funding needs to be reduced to prioritize education. In addition, it cannot be easy to ensure that the increased budget is used efficiently and effectively, and appropriate monitoring and evaluation mechanisms must be in place. Despite these obstacles, increasing government spending on education remains essential for enhancing the education system and providing students with improved opportunities.

2. Improve teacher recruitment and instruction.

Improving teacher training and recruitment is a further essential step toward enhancing the education system in Indonesia. Providing teachers with more excellent training and support can enhance the overall quality of education. In order to ensure that students receive high-quality instruction, hiring qualified and enthusiastic educators is also essential. However, This can be difficult, as low salaries and a lack of incentives may make recruiting and retaining talented instructors challenging. In addition, training and professional development programs require substantial financial resources and infrastructure, which can hinder their implementation. Nevertheless, investing in teacher training and recruitment is essential to enhancing the Indonesian educational system and providing students with improved opportunities.

3. The Importance of early childhood education

Providing a solid foundation for later learning in Indonesia requires a significant emphasis on early childhood education. Investing in this area can lead to enhanced student outcomes and a more productive workforce in the long run. However, establishing and expanding early childhood education programs is difficult due to the need for resources and infrastructure. In addition, it may be necessary to surmount cultural barriers and convince parents of

the significance of early childhood education. Early childhood education must be prioritized despite these obstacles to ensure the future success of Indonesia's education system.

4. Close the rural-urban educational divide

In order to achieve equitable access to education for all students in Indonesia, it is crucial to close the rural-urban education gap. Providing education in rural areas necessitates the construction of infrastructure and the hiring of more qualified instructors. However, constructing infrastructure in remote locations can take time and effort. In addition, low pay and limited access to resources may make recruiting and retaining teachers in these areas challenging. Despite these obstacles, efforts to close the rural-urban education divide are essential if all children have access to quality education.

5. Promote community-school collaboration

To provide a comprehensive and well-rounded education for children, fostering collaboration between institutions and communities is essential. By collaborating, schools can utilize community resources and expertise to enhance their programs and provide students with additional support. However, differences in institutions' and communities' priorities and values may hinder collaboration. To ensure that collaborations are effective and sustainable over the long term, it is critical to establish clear communication channels and mutual understanding. Additionally, it is essential to evaluate the outcomes of collaborations to ensure that all parties involved, including the community, the school, and the students, reap the benefits.

Implementing these recommendations will demand substantial resources and political will. However, enhancing Indonesia's educational system will have long-term benefits for future generations.

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