

Intended Publication: Journal's Of Exploring Educational Competencies: A Comparative Analysis Of PISA And PIRLS Studies

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Abstract.

The paper provides a comparison review of the role of PISA (Program for International Student Assessment) and PIRLS (Progress in International Reading Literacy Study) arranged by OECD (Organisation for Economic Co-operation and Development) in the development of Indonesian Education System. Based on the criteria outlined in the preliminary examinations, relevant articles were included in this review study. The research methods used for examination were descriptive and content analysis. Specifically, content analysis was employed to analyze studies that focused on the rankings of ASEAN countries as well as the declining score trends of Indonesia in the PISA and PIRLS. As a result, The Tables of ASEAN countries Educational Developments and Comparison are presented. With this study, the role of PISA and PIRLS can be determined and further measurements can be taken by major stakeholders in Indonesian Educational Territory.

Keywords: Education, PISA, PIRLS, Indonesia Education Development, International Comparative Study.

I. INTRODUCTION

In the current global landscape, the importance of education has garnered widespread recognition, prompting a strong commitment to developing a comprehensive strategy for global education. In this pursuit, implementation strategies play a crucial role, particularly in renowned worldwide comparison studies like those conducted by Syrymbetova et al. (2016). These studies, such as the Programme for International Student Assessment (PISA) and the Progress in International Reading Literacy Study (PIRLS), provide invaluable insights into the educational competencies of different countries, enabling policymakers and stakeholders to make informed decisions and foster meaningful improvements in their respective education systems. By analyzing the findings of such studies and tailoring them to suit the unique context of each country, including Indonesia, policymakers can enhance the effectiveness and relevance of educational initiatives, leading to the overall advancement of the nation's educational landscape and ultimately contributing to global progress in education. Currently, working with creativity and comprehension is more important for successful inclusion within society than having a large amount of acquired encyclopedic knowledge. This entails utilizing a variety of knowledge, accurately evaluating it, and effectively putting it to use in both one's professional and personal life (Plavcan, 2020). Conducting literacy surveys on students in both national and global contexts is crucial for integrating the younger generation into the modern information society. It is also important to properly interpret and understand the scientific data collected from these surveys for wider applications. These justifications highlight the significance of such surveys in the field of education. Surveying student performance in an international setting is beneficial for allowing participating nations to compare their students' performance to that of other nations.

Participating countries can identify disparities in the breadth and content of the curricula taught, as well as variances in how well the students are able to apply the knowledge they have learned, by comparing student accomplishment across several jurisdictions. Indeed, worldwide surveys like PISA and PIRLS have a significant influence on policy decisions made by the participating nations and the work of instructors with students in classrooms. The comprehensive data and comparative analysis provided by these studies shed light on the strengths and weaknesses of different education systems, exposing areas that require improvement and highlighting successful practices that can be adopted or adapted. Policymakers use the findings as evidence-based guidance to shape educational policies, allocate resources effectively, and implement reforms that aim to enhance the overall quality of education. Moreover, these survey results also impact the work of educators in classrooms. Teachers and instructors gain valuable insights into international benchmarks and

the academic performance of their own students compared to their global peers. This awareness can motivate educators to strive for higher standards, adopt innovative teaching methods, and tailor their instructional approaches to address specific learning needs and challenges. By aligning their teaching practices with the best practices observed in successful education systems worldwide, instructors can create a more conducive learning environment and improve student outcomes.

For these reasons, worldwide surveys have an effect on policy decisions made by the participating nations, as well as the work of instructors with students in classrooms. Hence, to improve students' ability to apply what they learn in a wider context, participating nations can make targeted changes to their organizations and the curriculum itself using the results of international comparisons of student performance. The international poll specifically PISA focus on students' capacity to comprehend curriculum knowledge and apply it creatively in wider situations. (Qizi,2022). PIRLS (Progress in International Reading Literacy Study) is an assessment of reading comprehension that has been monitoring trends in student achievement at five-year intervals since 2001. The growth in the number of nations taking part in the PISA and PIRLS research is proof of this. The PISA study evaluates students' capacity to apply their academic knowledge and practical skills in the areas of mathematics, science, reading, and problem-solving (Syrymbetova et.al, 2016). The participation of countries or regions in PISA has seen a significant increase over the years, from 32 in the year 2000 to around 88 expected to participate in the upcoming PISA 2022. Given the influence of worldwide surveys on education policies and practices, it is essential to consider their implications in the context of Indonesia, one of the largest countries in the world, with a population of over 270 million people. Despite its vast natural resources and strategic location, the country faces significant challenges in developing its education system. Over the past few decades, the Indonesian government has implemented various education policies and programs to improve the quality of education and increase access to education for all. The education system in Indonesia participates in worldwide comparative studies, like those other nations in recent years.

As is common knowledge, continual monitoring of the status and trends of educational development as well as a sufficient and objective evaluation of student academic progress are required to raise the standard of education. Laying the groundwork for students' future personal development and civic formation is crucial, especially at the secondary level. One of the tools that the government has used to assess the quality of education in the country is the Programme for International Student Assessment (PISA). Since 2000, Indonesia has participated in PISA and PIRLS in 2001, the results of the studies have been used to inform education policy and practice in the country. However, the use of PISA and PIRLS data in Indonesia has been subject to criticism, with some experts arguing that the study has limitations and that its results may not accurately reflect the quality of education in the country. Given the significance of PISA in shaping education policy and practice in Indonesia, there is a need to critically review the role of PISA and PIRLS in the development of the education system in the country over the past 22 years. This review could shed light on the strengths and limitations of using PISA and PIRLS to assess the quality of education in Indonesia and identify areas for improvement in the education system. Ultimately, the goal of this research is to contribute to the ongoing efforts to improve the quality of education and increase access to education for all in Indonesia. A key research question is why Indonesia have not seen any significant development in educational scores and ranks in PISA and PIRLS during our 22 years of participation; instead, Indonesia's position among members of PISA and PIRLS keeps declining. The purpose of this study is to provide an overview of some of the ASEAN countries' scores and ranks in PISA and PIRLS and Indonesia's position educational-wise and to compile some measurements in different areas of education. This study also provides Indonesia's journey in PISA and PIRLS participation through the years.

II. MATERIAL AND METHODS

A literature study (Research Library) involving Content Analysis that generates this paper's arguments (Fidel, 2008). The History of Indonesia's Participation and some other ASEAN countries' ranks and scores in PISA and PIRLS will be analyzed through journals and articles. Journals, articles, and online news provide all relevant documents.

Below are the main sources of this study:

No.	Year	Relevant Studies	Author	Published by	Published in
1.	2016	The Role of International Comparative Studies in The Development of the Kazakhstan Education System	Syrymbetova, et.al	ResearchGate	Kazakhstan
2.	2019	The Praxis of Literacy Movement in Indonesian Context	Mayuni, et. al	KnE Social Sciences	Indonesia
3.	2020	The Comparison of PIRLS, TIMSS, and PISA Educational Results in Member States of The European Union	Peter Plavcan	CBU International Conference	Czech Republic
4.	2020	School Literacy Movement and Its Implications towards Students' Learning: A Comparative Case Study in Jakarta and Taiwan	Mayuni, et .al	International Journal of Advanced Science and Technology	Indonesia
5.	2022	The Role of PISA, PIRLS, TIMSS in Evaluation of Quality of Biology Courses on The Basis of International Educational Programs	Supayeva Aziza Nuralli Qizi	EPRA International Journal of Research and Development (IJRD)	Peer Reviewed Journal (online) Tashkent, Uzbekistan
6.	2022	Penjajahan PISA	Didie SW	Kompas Daily (online), Artikel Opini, March 23 rd 2022	Indonesia

Subsection 1

For this study, data collection involved gathering relevant studies and research articles from various sources that focused on international comparative studies, particularly the Programme for International Student Assessment (PISA) and the Progress in International Reading Literacy Study (PIRLS). The main sources of data were academic journals, conference proceedings, and reputable online platforms like ResearchGate and KnE Social Sciences. The data collection process spanned from 2016 to 2022, encompassing studies conducted in Kazakhstan, Indonesia, the Czech Republic, Uzbekistan, and Taiwan. Once the relevant studies were collected, a thorough analysis was conducted to identify the key themes, methodologies, and findings of each study. The analysis focused on comparing the role and implications of international comparative studies, such as PISA and PIRLS, on the development and evaluation of education systems in different countries. Additionally, the studies' emphasis on literacy movements, students' learning outcomes, and the quality of educational courses were examined to gain a comprehensive understanding of the impact of these studies on educational practices.

Subsection 2

The interpretation phase involved synthesizing the findings from the collected studies and analyzing their implications in the context of education in Indonesia. By examining the experiences of other countries, such as Kazakhstan, the Czech Republic, Uzbekistan, and Taiwan, valuable insights were derived regarding the potential strategies and best practices that Indonesia could adopt or adapt to enhance its education system. The interpretation also aimed to identify areas of improvement for Indonesia, especially concerning the implementation of literacy movements, students' learning experiences, and the evaluation of educational quality based on international standards. Throughout the data collection, analysis, and interpretation process, a focus was maintained on understanding how international comparative studies, such as PISA and PIRLS, have shaped educational policies and practices in different countries, and how these lessons can be applied to benefit Indonesia's education system. The study aimed to present a comprehensive comparison review that would contribute to the ongoing efforts to improve educational outcomes and provide valuable insights for policymakers and educators in Indonesia.

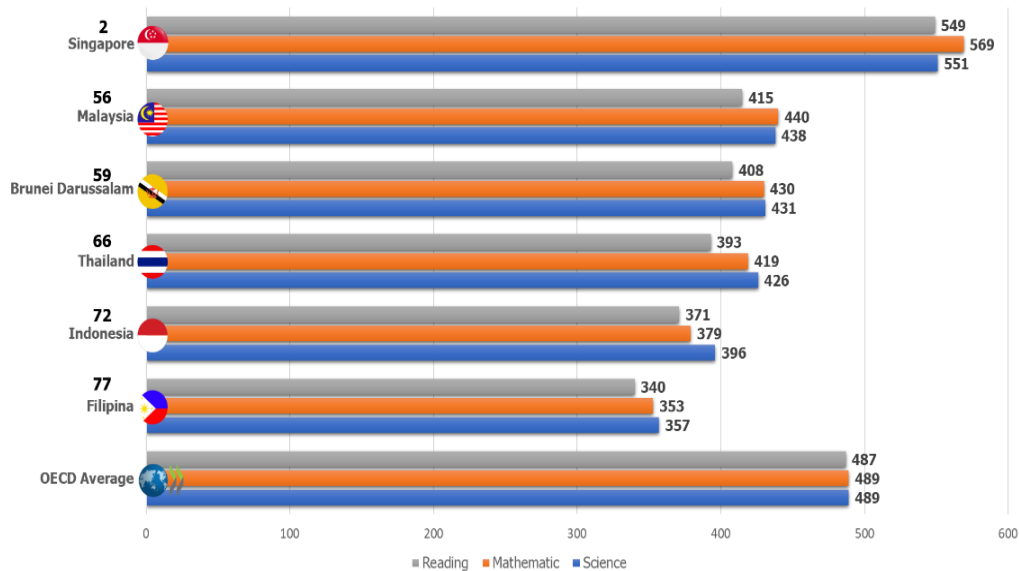
III. RESULTS AND DISCUSSION

A. Results

Education is a fundamental pillar for the progress and development of any nation, and it is crucial to assess the effectiveness of educational systems to ensure that students are equipped with the necessary skills to thrive in a rapidly changing global landscape. In this regard, international comparison studies like the Pro-

gramme for International Student Assessment (PISA) and the Progress in International Reading Literacy Study (PIRLS) play a significant role in providing valuable insights into the academic performance of students worldwide. As one of the largest countries globally, Indonesia's education system is of great interest to policymakers and educators alike. This review aims to analyze and compare the results of PISA and PIRLS studies in the Indonesian context.

Table 1. PISA Score of Indonesia among Asean Countries



Based on the data provided, the focus is on Indonesia among ASEAN countries in the Programme for International Student Assessment (PISA) 2018 reveals some important insights into the country's educational performance. Indonesia ranks 72nd globally in the PISA assessment, indicating significant room for improvement in academic achievement and proficiency among its students. The data highlights the challenges that Indonesia faces in enhancing the quality of education and student outcomes compared to some of its ASEAN counterparts. Singapore stands out as the highest-ranking ASEAN country in PISA, securing the second position globally. This exceptional achievement showcases Singapore's commitment to educational excellence and effective policies that foster academic proficiency among its students. On the other hand, Malaysia follows Singapore in the ASEAN region, ranking 56th globally. While Malaysia holds a lower rank than Singapore, it still outperforms other ASEAN countries in the PISA assessment, including Indonesia.

Brunei Darussalam ranks 59th, Thailand ranks 66th, and the Philippines ranks 77th in PISA among the ASEAN countries. These rankings indicate that these countries, like Indonesia, face challenges in improving the quality of education and academic performance among their students. The data underscores the significant disparities in educational achievements among ASEAN nations, with Singapore's PISA scores demonstrating a considerable lead over other countries in the region, including Indonesia. However, it is noteworthy that Malaysia and Brunei Darussalam have achieved relatively higher rankings compared to other ASEAN countries. This suggests that they have made commendable progress in their efforts to improve the quality of education and enhance student outcomes. To address the educational challenges faced by Indonesia and other ASEAN countries, policymakers must consider the successful strategies and best practices employed by high-performing nations like Singapore, Malaysia, and Brunei Darussalam. By learning from these examples and implementing targeted reforms, Indonesia can strive towards bridging the gap and elevating its educational standards, ultimately equipping its students with the necessary skills to excel in a global context. It is evident that enhancing the quality of education in Indonesia is crucial to the country's long-term social and economic development, and concerted efforts are required to achieve this goal.

Table 2.



Based on the data provided, it can be seen that Indonesia's PISA results have decreased from 2015 to 2018 across all three domains of reading, mathematics, and science. In 2015, Indonesia's reading score was 397, which decreased to 371 in 2018. Similarly, the mathematics score declined from 386 in 2015 to 379 in 2018. In the science domain, the score decreased from 403 in 2015 to 396 in 2018. These results indicate that Indonesia's education system faces challenges in improving the quality of education and enhancing student outcomes. The decrease in scores suggests that efforts to improve the education system have not been effective enough to keep up with the demands of international assessments like PISA. It is important to note that PISA results are not the only measure of the quality of education, and there may be other factors at play in Indonesia's education system that are not captured in these scores.

However, the decrease in scores should be a cause for concern and should prompt further efforts to improve the quality of education in Indonesia. The findings of the Programme for International Student Assessment (PISA) and the Progress in International Reading Literacy Study (PIRLS) provide a comprehensive perspective on the overall educational landscape in participating countries. While PISA primarily assesses students' proficiency in core subjects such as mathematics, science, and reading, PIRLS focuses specifically on reading literacy, offering a more targeted evaluation of students' reading abilities. By examining the results of both studies, a more nuanced understanding of the strengths and weaknesses of education systems can be obtained. This comparison allows for a deeper exploration of how countries perform in broader academic competencies as well as their specific reading comprehension capabilities. Understanding the interplay between these two vital components of education can guide policymakers and educators in formulating more effective strategies to improve overall educational outcomes and nurture well-rounded students with strong foundations in critical subjects like reading and numeracy.

Table 3. Pirls Reading Literacy



A. COST-WISE

Participation Fee For countries that participate in PIRLS 2016, the ePIRLS 2016 participation fee is an additional US\$12,500 plus €12,500 per year for five years. Alternately, participating countries may choose to pay a single installment of US\$62,500 plus €62,500.(PIRLS brochure 2016).

B. TABLE OF ACHIEVEMENTS OF ASEAN COUNTRIES

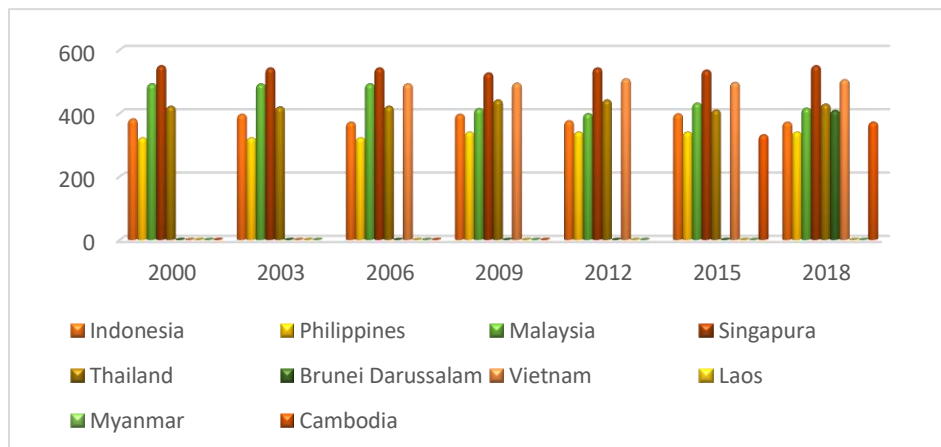
Based on the data presented, the performance of ASEAN countries in the Progress in International Reading Literacy Study (PIRLS) is shown for the years 2001, 2006, 2011, and 2016. In 2001, data was not available for Indonesia, Malaysia, Brunei Darussalam, Laos, Myanmar, and Cambodia. Among the countries with available data, Singapore had the highest score with 576, followed by Thailand with 419, and the Philippines with 308.

In 2006, all countries had data available, and the scores ranged from 275 for Cambodia to 590 for Singapore. Singapore maintained its top position, followed by Singapore, Brunei Darussalam, and Malaysia. Cambodia had the lowest score.

In 2011, the scores of the countries were somewhat similar to the 2006 results, with Singapore maintaining the highest score of 590, followed by Brunei Darussalam and Malaysia. Cambodia again had the lowest score. Indonesia's score improved to 396, while the Philippines also showed an improvement with a score of 345.

In 2016, the highest score was again achieved by Singapore with 576, followed by Vietnam with 528, and Malaysia with 446. Among the countries with available data, Indonesia showed a decline in score from 396 to 371, while Thailand and the Philippines also showed slight declines. Cambodia and Myanmar had the lowest scores among the countries with available data.

Table 4. Pisa Scores In Asean Countries



A. COST-WISE

According to information from the 2019 RISE international report, the cost for each country participating in the PISA test is 1-2 million US dollars per year. Indonesia, which has participated in the PISA test since 2000 and will participate again in 2022, does not have information on how much it has to pay to join as a participating country. However, assuming the cost per year is 1 million US dollars, Indonesia must pay around 42 billion Indonesian rupiah for three years. (Didie, 2022). The presented table illustrates the results of PISA scores in ASEAN countries, namely Indonesia, Philippines, Malaysia, Singapore, Thailand, Brunei Darussalam, Vietnam, Laos, Myanmar, and Cambodia. In 2000, Singapore had the highest PISA score with 549, while the Philippines had the lowest score with 322. Indonesia scored 381, Malaysia scored 492, Thailand scored 421, and Brunei Darussalam did not participate in the test. In 2003, all ASEAN countries participated in the test, and the scores for Indonesia, Philippines, Malaysia, Singapore, and Thailand remained relatively unchanged compared to 2000. Brunei Darussalam did not participate. In 2006, Brunei Darussalam participated in the test and scored 492, which is the same as Malaysia. Singapore maintained its position as the country with the highest score of 542, while Indonesia scored 371, and Thailand scored 421. In 2009, Vietnam and Laos participated in the test and scored 494 and 441, respectively. Singapore still had the highest score of 526, while Indonesia scored 396, and Thailand scored 441. In 2012, Brunei Darussalam did not par-

participate in the test, and Vietnam had the highest score in ASEAN countries with 508. Singapore maintained its position as the country with the highest score of 542, while Indonesia scored 375, and Thailand scored 441. In 2015, Cambodia participated in the test and had a score of 331, which is the lowest among ASEAN countries. Singapore maintained its position as the country with the highest score of 535, while Indonesia scored 397, and Thailand scored 409. In 2018, Myanmar participated in the test and scored 371, while Laos and Cambodia did not have their scores reported. Singapore maintained its position as the country with the highest score of 549, while Indonesia scored 371, and Thailand scored 428.

B. Discussion

The data provided focusing on Indonesia's performances indeed shows that Singapore has been consistently performing well in the PISA and PIRLS assessments, securing the second position globally in 2018. This is supported by previous studies that have highlighted Singapore's focus on improving its education system and investing in teacher training and development, which has resulted in higher academic achievement among its students (Lee & Gopinathan, 2019; Rokhmawati et al., 2020). However, the PISA and PIRLS scores of other ASEAN countries indicate that there is a significant gap in the quality of education and student outcomes within the region. This is consistent with previous studies that have highlighted the challenges faced by ASEAN countries in improving their education systems, such as inadequate funding, lack of resources, and poor teacher quality (Dahar, 2015; Pal & John, 2020). Nonetheless, the relatively higher rankings of Malaysia and Brunei Darussalam compared to other ASEAN countries suggest that they have made some progress in improving their education systems. This could be attributed to their focus on developing policies and strategies that promote access, equity, and quality education for all (Cheong et al., 2019; Wok et al., 2021). Overall, the data provided emphasizes the need for continued efforts by ASEAN countries to improve their education systems and enhance student outcomes. This could be achieved through policies and strategies that promote greater investment in education, better teacher quality, and enhanced access to education for marginalized groups.

The decrease in Indonesia's PISA and PIRLS scores from 2015 to 2018 is indeed concerning and underscores the need for continued efforts to improve the country's education quality. Several studies have highlighted the challenges faced by Indonesia's education system, including inadequate funding, insufficient teacher training, and a lack of educational infrastructure (Suryadi & Syahrial, 2019; Tan, 2020). Additionally, socio-economic factors such as poverty and inequality can also impact student performance in school (OECD, 2016). To address these challenges, there have been various initiatives and reforms implemented by the Indonesian government, including increasing funding for education, improving teacher training, and expanding access to educational infrastructure (OECD, 2016). However, it is clear that more needs to be done to improve student outcomes and the quality of education. One possible approach is to focus on improving the quality of teaching and learning in classrooms, as this has been shown to have a significant impact on student achievement (Suryadi & Syahrial, 2019). This can be done through the provision of teacher training and professional development opportunities, as well as the implementation of evidence-based teaching practices. The PISA and PIRLS scores in ASEAN countries provide insights into the performance of students in reading, math, and science. The data suggests that Singapore consistently outperforms other ASEAN countries in these subjects, while the Philippines, Cambodia, and Laos have lower scores. Indonesia, Malaysia, Thailand, and Vietnam fall somewhere in the middle.

The scores in each country may reflect various factors, including the quality of education, socioeconomic status, and cultural attitudes towards education. For instance, Singapore has a highly competitive education system that emphasizes academic excellence, while countries like Cambodia and Laos face challenges in providing adequate resources for education. It is also important to note that the PISA and PIRLS scores are just two measures of educational performance and should not be the sole basis for evaluating a country's education system. Nonetheless, the results can provide valuable insights into areas that need improvement, such as curriculum development, teacher training, and infrastructure investment. Research has shown that investments in education can have long-term benefits for a country's economic growth and development. A study by the World Bank found that increasing education attainment levels in a country can lead to higher labor productivity, lower poverty rates, and improved social outcomes (World Bank, 2018). Lynn et al (2010)

found significant differences in national IQs across countries, with the highest average IQs found in East Asian and European countries and the lowest in Sub-Saharan African countries. The authors argued that these differences in national IQs are primarily due to genetic factors, rather than environmental or cultural factors.

The PISA and PIRLS tests are widely used by both developed and developing countries to reform their education systems based on the test results. One factor that is believed to prevent African countries from participating in the PISA and PIRLS test from year to year is the expensive cost of participation. According to information from the 2019 RISE international report, the cost for each country participating in the PISA test is 1-2 million US dollars per year. Indonesia, which has participated in the PISA test since 2000 and will participate again in 2022, does not have information on how much it has to pay to join as a participating country. However, assuming the cost per year is 1 million US dollars, Indonesia must pay around 42 billion Indonesian rupiah for three years. This money can be used to improve the education facilities in Indonesia, which are still largely inadequate. Hundreds of billions of rupiah have been spent by Indonesia to participate in the PISA test (Didie, 2022). Participation Fee For countries that participate in PIRLS participation fee is an additional US\$12,500 plus €12,500 per year for five years. Alternately, participating countries may choose to pay a single installment of US\$62,500 plus €62,500.(PIRLS brochure 2016).Syrymbetova et al. (2016) examine several international studies that have been conducted in Kazakhstan, including the Programme for International Student Assessment (PISA), the Trends in International Mathematics and Science Study (TIMSS), and the Progress in International Reading Literacy Study (PIRLS). They note that these studies have highlighted areas of improvement for the Kazakhstan education system, such as the need to focus on critical thinking, problem-solving, and digital literacy skills.

Furthermore, the authors argue that international comparative studies have helped to shape education policy in Kazakhstan. For example, the government has implemented a number of reforms based on the findings of these studies, including the introduction of a new curriculum and the establishment of new teacher training programs. Overall, the study highlights the importance of international comparative studies in shaping education policy and improving the quality of education in Kazakhstan. By learning from the best practices and innovations of other countries, Kazakhstan can continue to develop a strong and effective education system that prepares students for success in the global economy. The study conducted by Mayuni et al. (2019) discusses the practice of the literacy movement in Indonesia. The authors highlight the importance of the literacy movement in improving the standard of living of the Indonesian people. The literacy movement is a solution to the problem of low interest in reading and writing in Indonesia. The study describes that the literacy movement in Indonesia is carried out by various institutions, organizations, and communities, both at the national and local levels. The literacy movement is carried out through activities such as the establishment of libraries, literacy training, distribution of books, and reading activities together. The authors also highlight the importance of the government's role in advancing the literacy movement in Indonesia. The government can provide support in the form of policies, budgets, and education programs that are oriented towards increasing the literacy of the population. Additionally, the government can collaborate with stakeholders such as publishers, writers, and literacy communities to jointly advance the literacy movement in Indonesia.

Overall, this study demonstrates the importance of the literacy movement in Indonesia as an effort to improve the literacy of the population and advance education in Indonesia. This study also highlights the role of the government and stakeholders in advancing the literacy movement in Indonesia. The study conducted by Mayuni et al. (2020) explores the school literacy movement and its implications for students' learning in Jakarta and Taiwan. The authors compare and contrast the implementation of the school literacy movement in the two countries and examine its impact on student learning outcomes. The study finds that the school literacy movement in Jakarta and Taiwan share similarities in their focus on reading promotion, writing development, and the establishment of libraries. However, there are differences in the implementation of the movement, such as the role of the government, the level of community participation, and the emphasis on digital literacy. The authors argue that the school literacy movement has a positive impact on students' learning outcomes, including their reading comprehension, writing proficiency, and critical thinking skills. Addi-

tionally, the study finds that students who participate in the school literacy movement have higher motivation and interest in reading and writing. The authors recommend that the implementation of the school literacy movement in both countries should continue to be improved, with a focus on increasing the participation of parents and the community, promoting digital literacy, and providing more professional development for teachers. Overall, this study highlights the importance of the school literacy movement in promoting students' learning outcomes and provides insights for the improvement of the movement in both Jakarta and Taiwan.

The study conducted by Plavcan (2020) compares the educational results of the Programme for International Student Assessment (PISA), the Trends in International Mathematics and Science Study (TIMSS), and the Progress in International Reading Literacy Study (PIRLS) in member states of the European Union. The author analyzes the data from these studies to identify trends and patterns in the educational performance of the EU member states. The study finds that there is significant variation in the educational performance of EU member states across the three international assessments. For example, while some countries perform well in PISA, they may perform poorly in TIMSS or PIRLS. The study also finds that some countries show consistent performance across the three assessments, while others show significant variation in their performance. The author suggests that the differences in educational performance may be due to a range of factors, including variations in curriculum, teaching quality, and cultural factors. Additionally, the author suggests that some countries may be prioritizing certain skills over others, leading to differences in performance across the assessments. The study concludes by emphasizing the importance of international comparative studies in understanding educational performance across countries. The author suggests that the findings of these studies can be used to inform educational policies and practices, and to identify areas for improvement in the education systems of EU member states. Overall, this study provides valuable insights into the educational performance of EU member states and highlights the importance of international comparative studies in understanding these variations.

IV. CONCLUSION

The data and studies presented in this study emphasize the disparities in educational outcomes among ASEAN countries especially Indonesia, with Singapore consistently leading the pack. While some countries have made progress in improving their education systems, many challenges such as insufficient funding, poor teacher quality, and a lack of resources continue to hinder progress. Although the PISA and PIRLS scores provide valuable insights into areas that need improvement, they should not be the sole basis for evaluating a country's education system. Instead, investments in education can have long-term benefits for a country's economic growth and development. International comparative studies such as PISA and PIRLS have played a crucial role in shaping education policy and improving education quality by identifying areas of improvement and best practices.

Additionally, the literacy movement has shown to have a positive impact on students' learning outcomes, including critical thinking skills, writing proficiency, and reading comprehension. Ultimately, educational performance varies significantly across countries due to various factors, including curriculum, teaching quality, cultural factors, and priorities. Based on data presented above, it is strongly suggested and highly recommended that Indonesia who has been participating in PISA and PIRLS for more than 20 years - without any significant progress despite considerable amount of fund spent- congregate all major stakeholders of in educational territory to review, reevaluate and reconsider urgently and immediately about the progress, benefit and continuation of participations in educational comparison studies for the success of our children, for the sake of the future generations in the years to come.

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