



Jurnal Pendidikan Ilmu Pengetahuan Sosial Indonesia is licensed under
A Creative Commons Attribution-Non Commercial 4.0 International License.

THE INFLUENCE OF GLOBALIZATION ON THE TEACHING STYLES OF GEOGRAPHY TEACHERS IN INDONESIA

Imam Mahdi¹⁾, Sriyanti²⁾, Agung Hidayat³⁾, Novika Adi Wibowo⁴⁾

¹⁾ Universitas Sebelas Maret, Surakarta, Indonesia
E-mail: imammahdi@student.uns.ac.id

²⁾ Universitas Sebelas Maret, Surakarta, Indonesia
E-mail: sriyanti@student.uns.ac.id

³⁾ Universitas Sebelas Maret, Surakarta, Indonesia
E-mail: agung.hidayat@staff.uns.ac.id

⁴⁾ Universitas Negeri Malang, Malang, Indonesia
E-mail: novika.wibowo.fis@um.ac.id

Abstract. *The main research question addressed in this study is: To what extent does globalization influence the teaching styles of geography teachers in Indonesia? This study aims to analyze the impact of globalization on the teaching styles of geography teachers in Indonesia. The primary focus is to identify how globalization affects four key parameters in teaching: technology adaptation, multiculturalism, global literacy and skills, and educational standards and evaluation. The research employed a survey involving 100 geography teachers from 19 provinces in Indonesia, who evaluated their responses to these parameters using a Likert scale. The results of the regression analysis reveal that globalization has a significant impact on teaching styles, with a regression coefficient of 0.7486. This indicates that each unit increase in adaptation to globalization enhances the teaching style by 0.7486 units. The R^2 value of 60.40% and the adjusted R^2 of 58.78% demonstrate that approximately 60% of the variation in teaching styles can be explained by the influence of globalization. These findings suggest that globalization encourages teachers to integrate technology into their teaching practices, promote multicultural values, and implement international educational standards. This study concludes that globalization significantly influences teaching styles in Indonesia and contributes to improving the quality of geography education.*

Keywords: *Globalization, Teaching Style, Geography Teachers*

Introduction

Globalization has a significant impact on the education system in Indonesia, particularly on teaching methods employed by teachers. Globalization requires teachers to integrate global perspectives, such as environmental issues, climate change, and international economic dynamics, into the learning process. The "*Kurikulum Merdeka*" currently implemented in Indonesia, is designed to provide teachers with greater flexibility in developing teaching methods tailored to students' needs and potential. This curriculum emphasizes project-based learning to enhance students' understanding of both global and local issues, as well as strengthen 21st-century skills such as creativity, critical thinking, communication, and collaboration.

In addition, the *Kurikulum Merdeka* also provides teachers with the flexibility to conduct more personalized formative assessments, allowing students to explore material in depth

according to their interests. The education system designed within the Kurikulum Merdeka is expected to align with the demands of the times and the needs of society (Sri Athena Barus & Sohilait, 2024). This aligns with the views of (Widodo, 2016), who emphasized the importance of scientific approaches and authentic assessments as part of global standards that enhance the competitiveness of Indonesian graduates on an international level.

However, as explained by (Azzizah, 2015) there are still challenges in implementing this technology-based curriculum, particularly in remote areas with limited digital access. Therefore, it is crucial for geography teachers to balance the use of technology with local approaches, ensuring that students not only grasp global knowledge but also maintain their cultural identity.

According to (Hartono, 2017), the internet and information technology provide opportunities for teachers to access international information sources, enhancing the quality of classroom learning materials. Another study by (Widodo, 2016) indicates that with a curriculum increasingly supporting critical thinking skills and global collaboration, teachers are more encouraged to integrate international perspectives and global data-driven knowledge into their teaching. Riza (2019) emphasizes the importance of utilizing this technology so that teachers not only focus on local topics but also introduce students to global dynamics relevant to Indonesia's context in the era of globalization (Al Amanah Jeneponto et al., 2024).

In the era of globalization, teaching styles in Indonesia have evolved to meet the demands of 21st-century skills. Teachers are no longer solely the primary source of information but now act as facilitators who encourage students to be active, creative, and critical thinkers. According to Riza (2019), project-based and collaborative teaching methods are increasingly essential to enable students to understand and adapt to complex global issues such as climate change and urbanization. This approach also promotes the development of problem-solving skills and strong communication abilities, which are crucial in the workforce (Al Amanah Jeneponto et al., 2024).

According to research conducted by Hutami and Sholeh (2014), geography teachers who were the subjects of their study predominantly relied on classical teaching methods, such as lectures. This indicates that technology has not been widely utilized, and teaching methods have not yet been influenced by globalization. Similarly, Lekahena Welly S, et al. (2024) found comparable issues, where common problems in classroom teaching included a mismatch between teaching styles and students' needs, a lack of creativity and innovation in teaching, limited interaction and participation, insufficient awareness of the diversity of students' learning styles, and a lack of utilization of educational technology. Furthermore, research by Hindayanti Fenty, et al. (2024) revealed that the classical teaching style remains the most commonly applied, where teachers take an active role while students tend to be passive unless prompted by the teacher through questions. This traditional teaching approach has not yet been

influenced by globalization. The teaching methods would likely differ if teachers incorporated changes driven by modern developments and globalization.

Furthermore, (Hartono, 2017) emphasizes that teachers must be capable of integrating digital technology into the learning process, such as through the use of interactive media, online learning platforms, and global data sources accessible via the internet. The utilization of such technology not only enriches teaching methods but also helps students develop essential digital literacy in today's information era. This teaching style aligns with the principles of the *Kurikulum Merdeka*, which grants teachers the freedom to tailor their teaching approaches to students' needs and interests, making the learning process more relevant and contextual.

This research on the impact of globalization on teachers' teaching styles employs quantitative methods to obtain a clear and objective understanding. The quantitative approach enables researchers to statistically measure and analyse changes in teaching styles, providing a basis for formulating educational policies that adapt to global changes (Rizal et al., 2023). The use of surveys in this study also aligns with the guidelines of Creswell and Clark (2011), who assert that surveys are an appropriate technique for collecting data from a broad population, particularly in the educational context (Creswell & Creswell, 2018).

By involving geography teachers from various provinces across Indonesia, this research aims to provide insights into how globalization has influenced classroom teaching approaches. Additionally, it seeks to offer recommendations for teachers to enhance their global competencies.

Method

This study on the impact of globalization on the teaching styles of geography teachers in Indonesia employs a quantitative method, aiming to systematically and objectively analyze numerical data. A survey method was used to collect data from respondents, consisting of geography teachers across various regions in Indonesia. The research population includes geography teachers from all over Indonesia, with a sample of 100 teachers spread across 19 different provinces, including Central Java, East Java, West Java, DKI Jakarta, Aceh, Bali, Banten, Bangka Belitung, Gorontalo, Jambi, South Kalimantan, East Kalimantan, Bangka Belitung Islands, Lampung, West Nusa Tenggara (NTB), Riau, Central Sulawesi, West Sumatra, and North Sumatra.

The selection of these 19 provinces aims to represent Indonesia's cultural, geographical, and social diversity, ensuring that the research results reflect a broader context.

The sampling technique used in this study was purposive sampling, where researchers selected specific provinces and teachers deemed capable of providing relevant information related to the research topic. The selection of provinces also considered differences in regional characteristics to ensure that the results capture variations in the impact of globalization on geography teachers' teaching styles.

The relationship between Indonesia's cultural, geographical, and social diversity and teachers' teaching styles is evident in how educators from different regions adopt varying approaches to teaching. Cultural diversity influences the integration of local values into globally relevant content, while geographical diversity, such as varying access to educational technology, affects the extent to which teachers can implement technology-based teaching methods. Social diversity, including students' educational backgrounds and social contexts, shapes how teachers adapt their teaching styles to meet the needs and potential of their students. This diversity is an essential factor in understanding how globalization impacts the teaching styles of geography teachers across Indonesia.

The sampling technique used in this study was purposive sampling, where researchers selected specific provinces and teachers deemed capable of providing relevant information related to the research topic. The selection of provinces also considered regional characteristic differences, ensuring that the results reflect the variation in the impact of globalization on geography teachers' teaching styles.

The research instrument was a questionnaire using a Likert scale to measure teachers' perceptions and teaching styles in addressing the influence of globalization. The questionnaire included a series of statements assessing various aspects of teaching styles, such as Technology Adaptation, Multiculturalism and Global Education, Global Literacy and Skills, as well as Educational Standards and Evaluation.

The data obtained from the questionnaire results were analyzed using quantitative methods, specifically classical statistical assumption tests conducted with Minitab Statistical Software 22, based on responses from the sample data consisting of geography teachers in Indonesia. These results were then described to assess the influence of globalization on the teaching styles of geography teachers. By employing a quantitative approach, this study aims to provide generalizable data, enabling conclusions that objectively depict the influence of globalization on the teaching styles of geography teachers in Indonesia.

Research Result

Globalization has brought significant impacts across various aspects of life, including education. As a phenomenon that connects different countries and cultures, globalization presents both challenges and opportunities to enhance educational systems in developing countries, including Indonesia. In this era of globalization, the demand for improving the quality of education is inseparable from the effective use of technology in the learning process (Luluk Baikuna et al., 2023). Globalization influences the development of education in Indonesia, encouraging teachers to adapt to changes in curricula and teaching methods that are more open to various global influences. (Sutrisno et al., 2023) In this context, globalization not only alters teaching materials but also reshapes how teachers manage learning and interact with students, particularly in integrating technology and multicultural values. Kurniawan and Prasetyo (2018) further emphasize that technological adaptation is crucial in teaching geography in the era of globalization, where teachers are expected to utilize various digital tools and media to enrich the learning process (Putut Sadewo, 2024).

The objective of this research is to analyze the impact of globalization on the teaching styles of geography teachers in Indonesia using four main parameters: Technology Adaptation, Multiculturalism and Global Education, Global Literacy and Skills, as well as Education Standards and Evaluation. The survey involves 100 geography teachers from 100 schools across 19 different provinces in Indonesia, including Central Java, East Java, West Java, DKI Jakarta, Aceh, Bali, Banten, Bangka Belitung, Gorontalo, Jambi, South Kalimantan, East Kalimantan, Bangka Belitung Islands, Lampung, West Nusa Tenggara (NTB), Riau, Central Sulawesi, West Sumatra, and North Sumatra.

On this context, the teaching style of geography teachers refers to the methods and approaches used in delivering instructional materials, including how they adapt technology, integrate global issues, and create a learning environment that supports the development of students' global skills. An effective teaching style includes the ability of teachers to respond to the demands of the times in innovative ways, such as utilizing technology in learning and applying multicultural values in the classroom (Hargreaves, 2003).

Furthermore, this study aims to provide an overview of how globalization contributes to improving the quality of geography education in Indonesia, with an emphasis on changes in technology-based teaching, multicultural understanding, and the global skills expected of students. A teaching style responsive to globalization is considered essential for preparing students to compete in an increasingly interconnected world (Banks & Banks, 2010). Therefore, developing teachers' teaching styles becomes a key factor in enhancing the quality of geography education.

Based on previous studies, teachers who can integrate technology and delve into global issues in their teaching can help students develop critical thinking skills and a deeper understanding of their world. (Slavin, 2014) Thus, this research is expected to contribute to understanding the impact of globalization on teaching styles in Indonesia. The average percentage results of teachers against globalization parameters are presented in Table 1.

Table 1. Average Percentage Results of Teachers' Responses to Globalization Parameters

Parameter	Sangat Tinggi	Tinggi	Sedang	Rendah
Adaptasi Teknologi	32%	40%	20%	8%
Multikulturalisme	28%	36%	30%	6%
Literasi dan Keterampilan Global	30%	34%	26%	10%
Standar Pendidikan dan Evaluasi	34%	42%	18%	6%

1. Technology Adaptation in Geography Teaching

Technology adaptation is one of the most significant aspects influencing the teaching styles of geography teachers in Indonesia. Based on the table results, 72% of teachers consider technology adaptation important in their teaching, with 32% responding "Very High" and 40% responding "High."

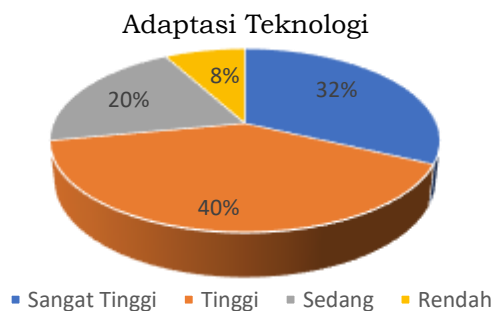


Figure 1. Pie Chart of Technology Adaptation Parameter Results

2. Multiculturalism and Global Education

The influence of globalization on the understanding of multiculturalism is evident in teachers' responses to this parameter, with 64% of teachers rating it as "High" or "Very High." According to the table, 28% of teachers responded with "Very High," and 36% responded with "High," indicating that the majority of teachers recognize the importance of multicultural education in a globalized world.

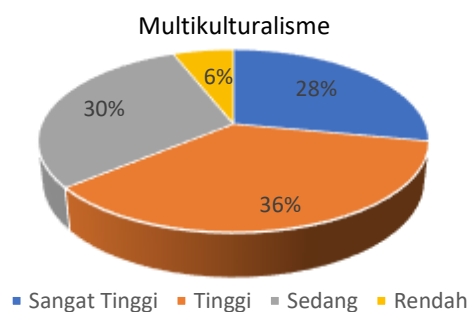


Figure 2. Pie Chart of Multiculturalism Parameter Results

3. Literacy and Global Skills

Global literacy plays a crucial role in equipping students to navigate the challenges of an increasingly interconnected and complex world. This skill is considered highly important by geography teachers, as reflected in survey results showing that 64% of teachers rated the importance of global literacy and skills as "High" or "Very High." The survey details reveal that 30% of teachers responded with "Very High," while 34% chose "High," indicating widespread recognition among teachers of the significance of these abilities in teaching geography.

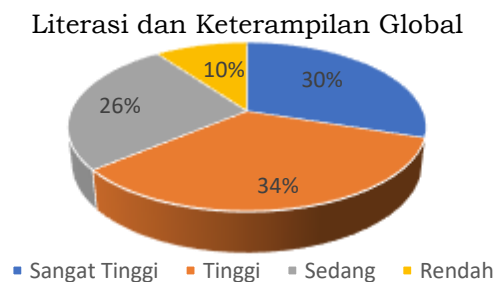


Figure 3. Pie Chart of Global Literacy and Skills Parameters Results

4. Educational Standards and Evaluation

In the discussion of this research's findings, it is evident that most geography teachers in Indonesia responded positively to the implementation of international education standards and evaluations. According to the research data, 76% of teachers reported a "High" or "Very High" level of implementation of these international standards, with 34% selecting "Very High" and 42% selecting "High."

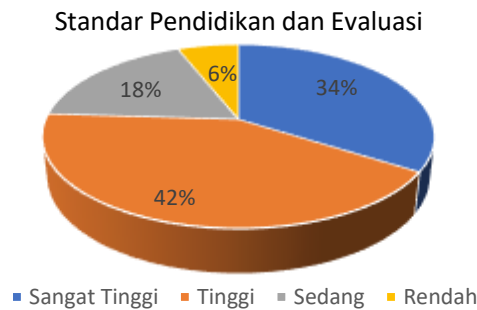


Figure 4. Pie Chart of Education Standards and Evaluation Parameters Results.

Statistical Analysis

The regression analysis using classical assumptions indicates that globalization has a significant impact on the teaching styles of geography teachers in Indonesia. Based on the linearity assumption test, the data for globalization and teaching styles of Indonesian teachers is linear. This is shown by the P-Value for Lack-of-Fit, which is 0.813, a value greater than 0.05. In addition to this table, the data distribution in the statistical calculations also includes a matrix plot that shows the data is scattered, indicating that the data is linear, as shown in Figure 5.

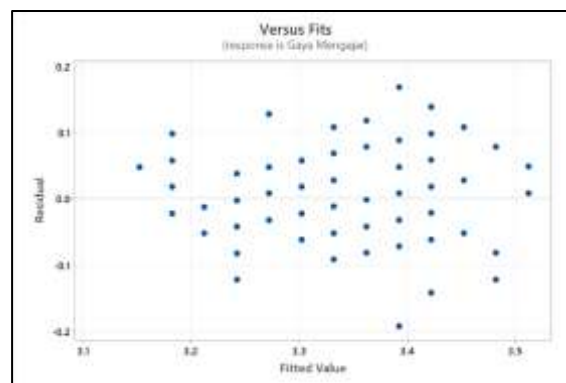


Figure 5. Matrix plot linieritas

The next classical assumption is to test whether the data exhibits constant variance in the residuals. By examining the pattern of point distribution in the graph, the researcher can identify whether the assumption of homoscedasticity is met. If the points are randomly scattered, it indicates that the residuals have constant variance, meaning the assumption of homoscedasticity can be considered satisfied (Spiegel, 2006).

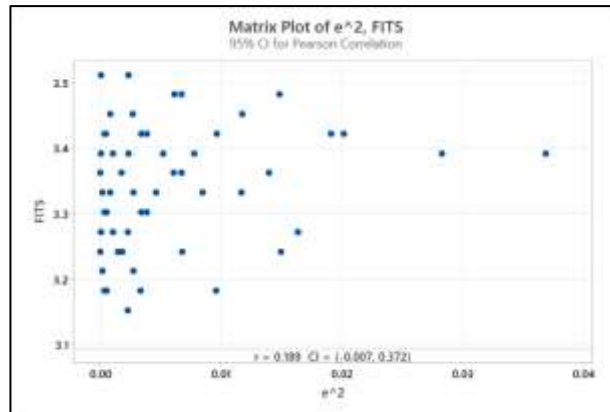


Figure 6. Matrix Plot Homoskedastisitas

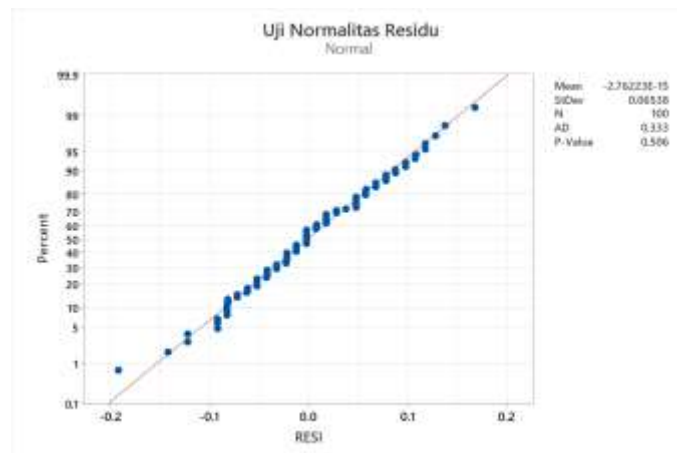


Figure 7. Residual Normality Test Graph

The classical assumption tests conducted produced statistical results that passed the classical assumption criteria. Therefore, the regression equation results can be used for prediction purposes. The regression equation generated from calculations using the statistical application, Minitab Statistical Software 22, is as follows:

$$\text{Teaching Style} = 0.697 + 0.7486(\text{Globalization})$$

This can be interpreted to mean that for every one-unit increase in the globalization variable, the teaching style score is expected to increase by 0.7486. This positive coefficient indicates that globalization serves as a driving factor for teachers to adjust their teaching styles to align more closely with international developments and standards.

The magnitude of globalization's influence on teaching style can be observed from the regression results in the model summary. The summary shows an R-squared value of 60.40%, indicating that 60.4% of the variation in teaching style can be explained by the globalization variable, while the remaining 39.6% is influenced by other factors not included in the globalization variable. The Adjusted R-squared value of 60.00% reflects a good level of accuracy, with slight adjustments for the number of variables used.

Discussion

This study aims to explore the impact of globalization on the implementation of geography education in Indonesia, specifically in relation to the use of technology, the integration of multiculturalism, and the enhancement of global literacy. The research also seeks to understand how geography teachers in Indonesia have adopted these changes in their teaching practices and to identify the challenges they face in dealing with the effects of globalization. This study makes an important contribution to enhancing our understanding of how geography teachers respond to the changes brought about by globalization and how they adapt their teaching methods to meet the demands of the times.

With the advancement of information technology, globalization also impacts the way geography material is delivered, making it more dynamic and diverse. This is acknowledged by the majority of geography teachers, with more than 70% of them applying technology in classroom teaching processes.

This indicates that most teachers (figure 1) are aware of the importance of technology in supporting more effective teaching, staying connected with global developments, and enhancing access to information. Technology serves as a tool to access and present richer information, making learning more engaging and relevant.

The use of technology in teaching geography, such as Geographic Information Systems (GIS), digital maps, and global data sources like big data, enables teachers to deliver more relevant lessons on global phenomena such as climate change, urbanization, and natural disasters. As (Hargreaves, 2003) explained, technology enriches the learning process by providing broader and more contextual data. With technology, students can explore global dynamics more deeply and visualize information that is challenging to grasp through traditional methods. This is particularly crucial in geography education, which emphasizes understanding spatial concepts and global issues.

The current advancements in global technology impact various aspects of life, including politics, economics, culture, arts, and education. Along with scientific progress, technological development is inevitable. In the education sector, technology has a significant impact, particularly in learning processes related to natural phenomena and the application of human knowledge facilitated by technological tools (Maritsa et al., 2021).

By adopting a teaching style that incorporates technology, teachers can enhance students' motivation and their analytical skills. This aligns with research conducted by (Meily Adlika et al., 2019), which demonstrated that the use of maps and technology in geography lessons conducted in laboratories can improve students' learning motivation and their skills in environmental analysis, particularly in understanding complex ecosystems such as peatlands. The use of other technologies in learning includes E-Learning, which, according to research by (Agistiningsih et al., 2023), also affects learning outcomes. E-Learning undoubtedly serves as a tangible bridge to students' global knowledge since, at present, all people worldwide are connected through online networks.

Digital technology not only aids in the presentation of materials but also facilitates collaboration between schools and countries in addressing shared challenges. Furthermore, research by (Wulandari et al., 2023) reveals that the use of technology-based learning platforms, such as interactive learning applications and multimedia, greatly assists teachers in creating deeper and more engaging learning experiences for students. Therefore, the integration of technology in geography teaching not only enhances the quality of learning but also broadens students' understanding of their increasingly interconnected world.

Based on Figure 2 regarding multiculturalism and global education, it shows that the majority of geography teachers recognize the relevance of multicultural education in preparing students to face increasingly complex global challenges.

Multicultural-based teaching helps students understand cultural differences and their influence on perceptions and attitudes toward global issues. Multicultural education aims to promote intercultural understanding and teach inclusive values amidst cultural, religious, and linguistic diversity. Banks & Banks (2010) stated that multicultural education encourages students to think critically and appreciate diversity. From this perspective, geography education not only focuses on physical and spatial aspects but also on the relationships between people and their cultures, as well as their impact on global phenomena such as migration, cultural conflicts, and the dissemination of global cultural values.

Based on this, multiculturalism is understood as cultural diversity, making multicultural education essential in multicultural nations to preserve and nurture diversity and foster harmony amidst differences (Widiatmaka et al., 2021). In this context, globalization is not only seen as a phenomenon that unifies the world but also as a process that brings new challenges in maintaining cultural diversity. Therefore, teaching multiculturalism through geography plays a crucial role in preparing students to become more inclusive and culturally aware global citizens.

This research also highlights the importance of global literacy in geography education. (Knight, 2004) argues that global literacy encompasses the ability to think critically about global issues, which is increasingly relevant to today's curriculum. This perspective aligns with (Amadi, 2023) view, which highlights in his research that global literacy plays a vital role in shaping students to think critically, be tolerant, and remain sensitive to issues that transcend national and cultural boundary. (Ari Sujarwadi et al., 2024) also asserts that students who understand global literacy are better prepared to comprehend real-world challenges. Furthermore, a study by (Rooselia, 2021) reveals that global literacy not only enhances students' critical thinking skills but also fosters empathy toward communities beyond their own regions, serving as an essential asset in addressing interconnected global issues.

The strengthening of global literacy has also proven to be beneficial in the classroom context, particularly in helping students gain a deeper understanding of the interconnectedness between local and global phenomena. Gutek emphasizes that global skills equip students to comprehend the relationships between countries and their impacts on their lives (Gutek, 2016). Similarly, Suryaningsih research demonstrates that global skills enable students to understand the global impacts on daily life, such as the effects of climate change on the economy and socio-cultural aspects. (Suryaningsih et al., 2023) By adopting a global literacy approach, geography teachers can provide

students with a broader perspective, which not only enhances their understanding of global issues but also prepares them to contribute positively within the global community.

One surprising finding is the low level of acceptance among teachers regarding the implementation of a curriculum based on international standards. Although most teachers recognize the importance of global education, they still perceive international standards as too difficult to implement in the local context. Only 40% (Figure 4) of teachers feel comfortable applying an international curriculum in their teaching, while the rest struggle to adapt the material.

Previous studies, such as those conducted by Slavin (2011), indicate that the implementation of international standards can drive improvements in teaching quality, making it more relevant to the global context. According to Slavin, these standards compel teachers to adopt data-driven teaching methods that support more effective and internationally relevant learning. This aligns with Darling-Hammond's research, which asserts that an international standards-based approach enables students to grasp the global context of the material taught, better preparing them to face challenges in a complex global world (Darling-Hammond et al., 2017).

Furthermore, the study by Harris & Jones, (2017) supports these findings by stating that international standards not only enhance student learning outcomes but also encourage teachers to innovate in evaluation methods. Teachers implementing these international standards tend to use more diverse and comprehensive assessment tools to measure students' abilities to understand both local and global issues. In Indonesia, this shift is increasingly evident in the adoption of more holistic assessment approaches that not only evaluate cognitive abilities but also develop critical and analytical thinking skills among students.

Additionally, the study by Rizvi & Lingard (2010) revealed that global education standards have shaped teaching practices to be more oriented toward global competencies. In Indonesia, this is reflected in the growing number of teachers recognizing the importance of integrating global perspectives into their teaching. The implementation of these international standards provides students with opportunities to explore global issues related to geography topics, such as climate change and economic globalization, making the learning process more contextual and applicable.

Therefore, the results of this study not only reflect the high awareness of teachers regarding the implementation of international standards but also highlight the need for enhanced institutional support and continuous training. The research by (Hargreaves & Fullan, 2012) emphasizes the importance of professional development for teachers in order to effectively adapt international standards without compromising local values. Consequently, the implementation of these international standards is expected to produce graduates who are globally competent while maintaining their local identity.

Based on the matrix plot (Figure 6), the data points are scattered and show no particular pattern, which means the data exhibits homoscedasticity. In addition to the matrix plot, this can also be observed from the r value. The r value in this data test is 0.189. With a value of 0.189, and when compared to the r table, it is greater than 0.198. This result indicates that the correlation is not significant, meaning the residual variance is constant.

In the study on the impact of globalization on the teaching styles of geography teachers in Indonesia, it is important to ensure that the analytical model used meets several basic regression assumptions, one of which is the assumption of no autocorrelation in the residuals, tested using the Durbin-Watson statistic.

In interpreting the results of the Durbin-Watson test and the normality test, theories and findings from other studies provide context that strengthens the validity of the regression model used. Durbin and Watson (1950), who developed this test, demonstrated that autocorrelation in residuals could undermine the validity of a regression model, particularly in time series analysis, as it leads to biased and less accurate estimates. A Durbin-Watson value around 2 indicates no autocorrelation issues, making the regression model more stable for interpretation. In the context of educational research, (Kuncoro, Mudrajad, 2011) in his book *Quantitative Methods*, states that the absence of autocorrelation in a regression model allows for more reliable predictions and reduces the risk of prediction errors.

Furthermore, the results of the normality test, which show a p-value of 0.506 (Figure 7), indicate that the residuals are normally distributed. Gujarati and Porter (2009), in *Basic Econometrics*, highlight the importance of normally distributed residuals to ensure the validity of significance tests in regression models. They emphasize that statistical tests such as the t-test and F-test assume normality in residuals, meaning that if this assumption is met, conclusions drawn from the significance tests are more reliable. This aligns with the findings of Sunarti (2018), who demonstrated that residual normality enhances the reliability of regression models in social research contexts, as test results become more stable and dependable in explaining the relationships between the studied variables. By meeting the assumptions of the Durbin-Watson test and residual normality, the regression model in this study confirms that no autocorrelation exists in the data based on the statistical calculation of variables.

In examining the impact of globalization on the teaching styles of geography teachers in Indonesia, the residual normality test serves as the final statistical test. This test ensures that the model's prediction errors are random and normally distributed, making the research findings reliable. Normal distribution of residuals is essential for assessing the validity of regression analysis results, particularly in the context of the highly dynamic influence of globalization.

The study by (Azzizah, 2015) highlights that globalization, through technology, expands access to education but also creates significant digital divides in remote areas of Indonesia. This impacts the validity of research findings, as these disparities need to be statistically accounted for, such as in the residual normality test, to avoid data bias.

Additionally, the study by (Argina et al., 2017) emphasizes the role of international standards, such as PISA, in reinforcing the urgency to adopt accurate research methods in Indonesian education. With global influences demanding the adaptation of methods and curricula, this research underscores the importance of validation through residual normality tests to ensure that research findings remain relevant to international standards. (Widodo, 2016) further highlights that curriculum changes in Indonesia, increasingly adopting global scientific approaches, require validity testing of analytical models to support educational transformation. In the context of globalization, employing models that meet assumption tests, including residual normality, is crucial in measuring the impact on the quality and teaching styles implemented.

To determine whether the residuals are normally distributed, the results of this test can be examined by looking at the p-value, which is 0.506. Since this value is greater than 0.05, it can be concluded that the data meets the assumption of normality for this fourth test.

The findings of this study underscore the significant role globalization plays in shaping teaching styles. With a high R-squared value of 60.4%, it is evident that globalization is a major factor driving changes in how teachers approach their pedagogy. This aligns with the growing need for educators to adapt to international standards and evolving educational demands. The results indicate that globalization is not merely an external influence but a catalyst for teachers to enhance their teaching methods, ensuring they are relevant to both local and global contexts. However, the remaining variance suggests that other factors also contribute to the evolution of teaching styles.

Although this study is statistically significant, it has several limitations. First, the sample is limited to geography teachers in certain regions, which may affect the generalization of the findings, as only 100 samples were taken from 19 provinces in Indonesia. Future research could expand the sample to include all regions of Indonesia to provide a more comprehensive picture of globalization's impact on geography education. Second, this study primarily focuses on the perspective of teachers and does not sufficiently involve students, who could offer a more holistic view of how globalization-based teaching affects student learning outcomes. Therefore, future studies involving students and other factors, such as educational policies, would provide a clearer understanding of how globalization influences geography education in Indonesia.

Conclusion

This study concludes that globalization has a significant influence on the teaching styles of geography teachers in Indonesia. Based on quantitative regression analysis, each increase in adaptation to globalization enhances teaching styles by 0.7486 units, with an R^2 value of 60.40% and an adjusted R^2 value of 58.78%. These figures indicate that approximately 60% of the variation in teaching styles can be explained by the influence of globalization. The findings suggest that globalization impacts four key aspects of teaching: technological adaptation, multiculturalism, global literacy and skills, and educational standards and evaluation. Geography teachers in Indonesia have integrated technology into their teaching to provide more relevant information, instilled cultural diversity values within a global context, developed global literacy skills to help students understand global issues, and implemented international educational standards in their teaching processes. Overall, globalization plays a significant role in improving the quality of geography education in Indonesia, encouraging teachers to adapt to technological advancements and teach multicultural values alongside enhanced global education standards.

References

- Agistiningsih, R., Astuti, E., & Styaningrum, F. (2023). Pengaruh Penggunaan E-Learning Terhadap Hasil Belajar Dengan Minat Belajar Dan Motivasi Sebagai Variabel Intervening. *Jurnal Pendidikan Ilmu Pengetahuan Sosial Indonesia*, 8(1), 61–77.
- Al Amanah Jeneponto, I., A Rajamuddin, J. H., & Empoang Selatan Kecamatan Binamu Kabupaten Jeneponto, Mhk. (2024). Pengaruh Globalisasi Terhadap Dunia

- Pendidikan Di Indonesia. *Technical and Vocational Education*, 4(2), 2721–9798.
<https://doi.org/10.556442>
- Amadi, A. S. M. (2023). Pendidikan di Era Global: Persiapan Siswa untuk Menghadapi Dunia yang Semakin Kompetitif. *Educatio*, 17(2), 153–164.
<https://doi.org/10.29408/edc.v17i2.9439>
- Argina, A. W., Mitra, D., Ijabah, N., & Setiawan, R. (2017). *Indonesian Pisa Result: What Factors And What Should Be Fixed?* <https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf>
- Ari Sujarwadi, Dinie Anggraeni Dewi, & Rizky Saeful Hayat. (2024). Pentingnya Literasi Budaya Dan Kewarganegaraan Pada Siswa Sekolah Dasar Di Era Globalisasi. *Sintaksis: Publikasi Para Ahli Bahasa Dan Sastra Inggris*, 2(1), 127–135.
<https://doi.org/10.61132/sintaksis.v2i1.280>
- Azzizah, Y. (2015). Socio-Economic Factors on Indonesia Education Disparity. *International Education Studies*, 8(12), 218.
<https://doi.org/10.5539/ies.v8n12p218>
- Creswell, D., & Creswell, J. (2018). *creswell* (M. O’Heffernan, Ed.; 5th ed.). SAGE.
<https://lcn.loc.gov/2017044644>
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective Teacher Professional Development*. Learning Policy Institute.
<https://learningpolicyinstitute.org/product/teacher-prof-dev>
- Gutek, G. L. (2016). Book Review Philosophical, Ideological, and Theoretical Perspectives on Education, 2nd edition. *Alberta Journal of Educational Research*, 62, 220–222.
- Hargreaves, A. (2003). *Teaching In The Knowledge Society Education In The Age Of Insecurity*. Teacher College Press.
- Hargreaves, A., & Fullan, M. (2012). *Advance Praise for Professional Capital* (1st ed.). Teachers College Press.
- Harris, A., & Jones, M. (2017). Leading educational change and improvement at scale: some inconvenient truths about system performance. *International Journal of Leadership in Education*, 20(5), 632–641.
<https://doi.org/10.1080/13603124.2016.1274786>
- Hartono, Y. (2017). Model Pembelajaran Nilai-Nilai Karakter Bangsa Di Indonesia Dari Masa Ke Masa. *Agistya*, 7, 34–47. <https://doi.org/10.25273/ajsp.v7i01.1059>
- Knight, J. (2004). Internationalization Remodeled: Definition, Approaches, and Rationales. *Journal of Studies in International Education*, 8(1), 5–31.
<https://doi.org/10.1177/1028315303260832>
- Luluk Baikuna, M. Farhan Hidayatuloh, Muhammad Fikri Rizal, Nafiatul Fitria, Nurul Ulfatun Anjelina, M. Rivani Eko Mahendra, Marlina Marlina, & Agustina Zahrotin Nisak. (2023). Peran Teknologi Pendidikan Dalam Pemanfaatan Pembelajaran IPS. *JURNAL PENDIDIKAN DAN ILMU SOSIAL (JUPENDIS)*, 2(1), 102–115.
<https://doi.org/10.54066/jupendis.v2i1.1182>
- Maritsa, A., Hanifah Salsabila, U., Wafiq, M., Rahma Anindya, P., & Azhar Ma’shum, M. (2021). Pengaruh Teknologi Dalam Dunia Pendidikan. *Al-Mutharahah: Jurnal Penelitian Dan Kajian Sosial Keagamaan*, 18(2), 91–100.
<https://doi.org/10.46781/al-mutharahah.v18i2.303>
- Meily Adlika, N., Tampubolon, B., Mirzachaerulsyah, E., & Juniarti, N. (2019). Implementasi Pembelajaran Pada Laboratorium Geografi Berbantuan Media Peta Pemanfaatan Lahan Gambut Di Sma Negeri 3 Pontianak. *Jurnal Pendidikan Ilmu Pengetahuan Sosial Indonesia*, 4(2), 55–57.

- Prof. Mudrajad Kuncoro, Ph. D. (2011). *Metode Kuantitatif: Teori Dan Aplikasinya Untuk Bisnis Dan Ekonomi* (4th ed., Vol. 4). UPP STIM YKPN.
- Putut Sadewo, A. (2024). Analisis Penggunaan Media Pembelajaran Digital Interaktif Terhadap Motivasi Belajar Dan Hasil Belajar Mahasiswa Universitas Negeri Jakarta. *Cendekia Pendidikan*, 7(9). <https://doi.org/10.9644/sindoro.v3i9.252>
- Rizal, M., Yunus, K., Barat, U. S., Jurnal, B., & Biologi, P. (2023). *Analisis Keterampilan Kolaborasi Peserta Didik Kelas Xi Mia Sma Negeri 1 Barru Pada Model Pembelajaran Kooperatif Number Heads Together. 1*. <https://e-journal.my.id/biogenerasi>
- Rizvi, F., & Lingard, B. (2010). *Globalizing Education Policy* (1st ed.). Routledge.
- Rooselia, Y. (2021). *Dampak Globalisasi Terhadap Karakter Peserta Didik dan Kualitas Pendidikan di Indonesia*. 5, 1544–1550.
- Slavin, R. E. . (2014). *Educational psychology : theory and practice* (10th ed.). Pearson.
- Sri Athena Barus, C., & Sohila, D. (2024). Analisis Keterampilan Kolaborasi Peserta Didik Kelas Xi Mia Sma Negeri 1 Barru Pada Model Pembelajaran Kooperatif Number Heads Together. *Jurnal Pendidikan Ilmu Pengetahuan Sosial Indonesia*, 9(3), 200–213.
- Suryaningsih, T., Maksum, A., Marini, A., Islam, U., Syarif, N., Jakarta, H., & Jakarta, U. N. (2023). Pedagogik Membentuk Profil Pelajar Pancasila Dimensi Berkebinekaan Global melalui Pendidikan Multikultural di Sekolah Dasar. *DWIJA CENDEKIA: Jurnal Riset Pedagogik*, 7(3), 1028–1042.
- Sutrisno, S., Sunarto, S., & Jumadi, J. (2023). Global citizenship education in the perspective of strengthening Pancasila student profiles. *Jurnal Civics: Media Kajian Kewarganegaraan*, 20(2), 322–331. <https://doi.org/10.21831/jc.v20i2.63983>
- Widiatmaka, P. (2021). Pendidikan Kewarganegaraan sebagai Ujung Tombak Pembangunan Karakter Pancasila di Perguruan Tinggi. In *Jurnal Keindonesiaan* (Vol. 01, Issue 02). <https://doi.org/https://doi.org/10.52738/pjk.v1i2.41>
- Widodo, H. (2016). Potret Pendidikan Di Indonesia Dan Kesiapannya Dalam Menghadapi Masyarakat Eonomi Asia (Mea). *cendekia*, 13, 293–307. <https://doi.org/10.21154/cendekia.v13i2.250>
- Wulandari, A. P., Salsabila, A. A., Cahyani, K., Nurazizah, T. S., & Ulfiah, Z. (2023). Pentingnya Media Pembelajaran dalam Proses Belajar Mengajar. *Journal on Education*, 05(02), 3928–3936. <https://doi.org/https://doi.org/10.31004/joe.v5i2.1074>