Implementation of Multicultural Learning as Effort to Build Technology-Based Tolerance Character Value in Elementary Schools

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Abstract

Multicultural learning has occupied a key position in modern education, serving as an important foundation for strengthening tolerance and deepening cross-cultural understanding among students. The aim of this research is to determine the application of multicultural learning as a step in cultivating technology-based values of tolerance. This research is quantitative. This research data was processed using the JASP (Jeffrey's Amazing Statistics Program) program. This research uses primary data, with a total of 60 respondents from schools in Indonesia. Various factors are considered to ensure a comprehensive understanding of the education systems across participating countries. The following are some of the main variants or criteria that are usually assessed for elementary schools consisting of 10 private schools and 50 public schools in the 2018 PISA sample: school resources, educational practices, learning environment, educational outcomes, and technology integration.The research results show that the technology variable T1 Number of digital devices shows significant positive results, T2 also has a significant impact on Teachers' pedagogical skills in integrating digital tools, and T3 Effective Online Learning Platform also shows significant results in improving multicultural learning. Meanwhile, the variable M1 Study the culture of various countries did not show significant results, but M2 M2: Study cultural differences had a significant positive effect, and M3 Organizing multicultural learning also had a significant positive effect on increasing multicultural learning because the probability value was below the significance value <0.05. The implications of this research can provide a deeper understanding of the role of multicultural learning in forming attitudes of tolerance, as well as the use of technology as a means to increase its effectiveness.

Keywords: Character Building, Multicultural Learning, Technology, Tolerance Value

Abstrak

Pembelajaran multikultural telah menempati posisi kunci dalam pendidikan modern, menjadi landasan penting untuk memperkuat toleransi dan memperdalam pemahaman lintas budaya di kalangan siswa. Tujuan penelitian ini adalah untuk mengetahui penerapan pembelajaran multikultural sebagai langkah penanaman nilai-nilai toleransi berbasis teknologi. Penelitian ini bersifat kuantitatif. Data penelitian ini diolah dengan menggunakan program JASP (Jeffrey's Amazing Statistics Program). Penelitian ini menggunakan data primer, dengan jumlah responden 60 orang dari sekolah-sekolah di Indonesia. Berbagai faktor dipertimbangkan untuk memastikan pemahaman komprehensif tentang sistem pendidikan di seluruh negara peserta. Berikut beberapa varian atau kriteria utama yang biasa dinilai untuk sekolah dasar yang terdiri dari 10 sekolah swasta dan 50 sekolah negeri dalam sampel PISA 2018: sumber daya sekolah, praktik pendidikan, lingkungan belajar, hasil pendidikan, dan integrasi teknologi. Hasil penelitian menunjukkan bahwa

variabel teknologi T1 Jumlah perangkat digital menunjukkan hasil positif yang signifikan, T2 juga memberikan pengaruh yang signifikan terhadap keterampilan pedagogi Guru dalam mengintegrasikan alat-alat digital, dan T3 Platform Pembelajaran Online Efektif juga menunjukkan hasil yang signifikan dalam meningkatkan pembelajaran multikultural. Sedangkan pada variabel M1 Mempelajari budaya berbagai negara tidak menunjukkan hasil yang signifikan, namun M2 M2: Mempelajari perbedaan budaya berpengaruh positif signifikan, dan M3 Menyelenggarakan pembelajaran multikultural juga berpengaruh positif signifikan terhadap peningkatan pembelajaran multikultural karena nilai probabilitasnya adalah di bawah nilai signifikansi <0,05. Implikasi dari penelitian ini dapat memberikan pemahaman yang lebih mendalam mengenai peran pembelajaran multikultural dalam membentuk sikap toleransi, serta pemanfaatan teknologi sebagai sarana untuk meningkatkan efektivitasnya.

Kata Kunci*: Pembentukan Karacter, Pembelajaran Multikultural, Nilai Toleransi, Teknologi*

INTRODUCTION

Education plays a key role in shaping the character and attitudes of children at the elementary school level (Mustoip et al., 2023). Through this educational process, children are introduced to important understandings, attitudes, and values, including tolerance for cultural diversity (Nurlina, 2019). In elementary school, children begin to learn about the plurality of cultures around them (Levstik & Barton, 2022). They are introduced to the concept of cultural diversity through religious education, citizenship lessons, and daily interactions with classmates who come from diverse cultural backgrounds. Teachers in elementary schools have a very important role in guiding children to develop an inclusive understanding and a tolerant attitude towards cultural differences (Jamaludin et al., 2022). Thus, education at the elementary school level plays a vital role in forming the young generation, which has positive attitudes and values related to tolerance in the context of cultural diversity.

In the era of increasingly advanced globalization, interaction between cultures has become unavoidable. People in various countries must be able to adapt to differences in culture, religion, and belief to create harmony and mutually beneficial cooperation (A. Aslan, 2019). Education today has an important role in the advancement of science and technology by providing benefits in the form of new discoveries that will benefit students and encourage technological development (Ridho Ahmad et al., 2022). Therefore, instilling the character value of tolerance is very important in education, especially in the midst of rapid technological developments. Character education in the 2013 Curriculum aims to improve the quality of educational processes and outcomes by focusing on the formation of students' noble character and morals in a comprehensive, integrated, and balanced manner (Denay sundi et al., 2021).

The Independent Curriculum concept adds a new dimension to these efforts by providing greater space for schools to adapt their curriculum to local needs and contexts, as well as adopting more innovative and student-centered learning approaches (Al Aluf, 2024). With the Independent Curriculum, character education is not only part of the curriculum objectives, but also becomes the basis for developing students' independence, adaptability, and social and emotional skills which are very necessary in an increasingly complex and diverse society (Waruwu & Waruwu, 2023). Through this approach, it is hoped that students can understand, appreciate and interact harmoniously with various cultures, beliefs and views in an increasingly connected global environment.

One approach that can be used to instill the character value of tolerance is through the implementation of multicultural learning (Japar, 2018). Multicultural learning allows students to understand, appreciate, and respect the diversity of different cultures, backgrounds, and perspectives (Zurna et al., 2018). Human education takes place in various environments, such as families, schools, and the surrounding community (Toriyono et al., 2022). Through this learning, students can develop inclusive attitudes, empathy, and mutual respect for facing differences. The goal of multicultural

education, as explained by Klein, is to ensure that students from various racial, ethnic, and social class groups receive quality education and provide equal opportunities for male and female students to achieve success and educational mobility (Fatmawati et al., 2018). In this context, the analysis of PISA 2018 (Program for International Student Assessment) data becomes relevant. PISA is a study conducted internationally by the Organization for Economic Co-operation and Development (OECD) to measure the abilities of students in various countries in the fields of literacy, mathematics, and science(Mercader Rubio et al., 2022). However, apart from that, PISA also provides data about students' attitudes, values, and character, including tolerance for cultural differences (Sajadi, 2019).

In the context of elementary school education, it is important for educators to pay attention to the fact to the fact that character education and the values of tolerance must start from an early age (Putri et al., 2021). Children at the elementary school level are the starting point for the formation of their attitudes and values toward the world around them (Alam, 2023). Therefore, learning methods that are interesting and adapted to their level of development need to be implemented. Implementation of multicultural learning, for example, can be done through stories, role plays, and collaborative activities that suit their interests and understanding (Anggo et al., 2023). In this way, students in elementary school will have a strong foundation for understanding, appreciating, and accepting cultural diversity, as well as developing a strong attitude of tolerance from an early age.

Through analysis of PISA 2018 data, we can understand how the implementation of technology-based multicultural learning contributes to instilling the character value of tolerance in students. Data can provide an overview of the extent to which students have an understanding, appreciation, and tolerance for cultural diversity. Quality education cannot be realized without teachers who are able to utilize technology in the teaching and learning process. Technological advances make it easier for teachers and students to access and use learning resources through information and communication technology (ICT), thereby achieving better learning goals (Azkiyah et al., 2022). Apart from that, data analysis can also help identify factors that influence the success or failure of implementing multicultural learning to instill the character value of tolerance. Over the last few years, information and communication technology has become an integral part of the learning process (Nur'aini et al., 2021). Multicultural education is an educational model based on the ideology of respect for human dignity, regardless of their economic, social, cultural, ethnic, language, belief, or religious background (Fahrani, 2022) as well as their origins. The use of technology in multicultural learning can increase intercultural interactions, facilitate understanding of cultural diversity, and provide opportunities for students to share their experiences and knowledge (Nainggolan et al., 2018). Through multicultural education, students become more understanding and appreciative of the meaning of diversity and the values of differences themselves (Barsiharno & Arifin, 2020).

Various empirical studies have revealed the importance of multicultural understanding from various aspects, such as Lu et al., (2022), which tested the latent construct of multicultural education (ME) among 1887 teachers in certain positions. This research uses the UK scale and the five-pillar framework developed by the World Bank to determine the context relevant to educational institutions and society. The results of his research show that three factors measure teacher capacity: multicultural efficacy, multicultural teaching practices, and multicultural beliefs. In addition, Liu et al., (2020) empirical investigation explored the characteristics, issues, and future directions of multicultural education in China. The results of his research reveal that multicultural education must receive primary attention from international eyes because it has important implications for achieving social justice in educational institutions. Apart from that, the study also revealed the interesting fact that six indicators correlate with each other to realize multicultural education, such as theoretical discourse, curriculum support, students' perspectives in a multicultural context, educational policy, citizenship education, and multicultural teaching. Furthermore, Young, (2020) study is also interesting to understand because it attempts to evaluate multicultural education courses in an educational environment by using white and black teacher educators as research objects. The results of the

investigation revealed that a black teacher educator who worked in a white-majority institution strongly supported the importance of multicultural understanding so that understanding the substance of multicultural life would provide effectiveness in learning.

Next is research by Torres & Tarozzi, (2020) which seeks to reveal a social justice model of education through multicultural education. The conclusion that can be drawn from this research is that multiculturalism basically has long historical roots. This is influenced by the flow of globalization and extends to various dimensions such as politics and educational institutions. As a model for multicultural education that is relevant is citizenship education. This will instill a mindset in people to appreciate the history of their own nation. Meanwhile, research by Irvine et al., (2021) is also interesting to present regarding the opportunities and challenges of Multicultural and International Online Education. This research reveals that by using intersectional social construction pedagogy, counselor educators can change the traditional multicultural counseling curriculum and strengthen the international distance learning environment. In addition, new approaches and innovative resources, such as online services that emphasize multiculturalism, online organizations and workshops that focus on students and multicultural aspects, as well as scheduling office hours to provide guidance to international students online and provide support for those studying distance Far.

Through consideration of the empirical studies above, the author emphasizes that multicultural education is very important in educational institutions. This will provide a comprehensive understanding of ethnic, racial and cultural differences in the midst of a pluralistic society. These factors encourage the author to further explore the application of multicultural learning to test whether it is able to shape students' character values in elementary schools. As a form of novelty in this research, the author tries to connect two important variables, namely multiculturalism, by dividing it into three indicators, such as understanding the culture of other countries, understanding differences in customs and habits, and emphasizing multicultural learning. Apart from that, to produce a comprehensive study, technological variables are also involved to measure the extent to which these variables are able to reveal their role in creating a more modern learning base. By involving three important indicators of technology, such as digital devices, teacher abilities, and online platforms, the author believes he will be able to produce a more coherent study of the correlation between these two variables. To strengthen data accuracy, this research uses PISA 2018 data developed by the Organization Economic Co-operation (OECD). Through reliable data sources, this research is able to provide more comprehensive results in the academic world and understanding of multicultural education.

RESEARCH METHOD

In this research, researchers used quantitative methods with a systematic and structured approach to collect data that was measured numerically. The type of data used is secondary data. To select the sample, this research used a purposive sampling technique that met certain criteria: as many as 60 school respondents in Indonesia which were accumulated in the 2018 PISA data developed by the Organization for Economic Co-operation Development (OECD) where researchers visited directly and downloaded the data for further processing. carry on. For further research, researchers used various statistical analysis techniques using JASP (Jeffrey's Amazing Statistics Program) software. Next, data analysis was carried out using simple regression to identify the relationship between multicultural variables and technological variables. Therefore, several important things that must be analyzed from the results of the JASP application include: Chi-square, Fit Indices, R-Squared, factor loadings values, variance values, covariance, and residual variance values. To ensure the validity of the data, the author determined several important points for the instrument that can represent these two variables:

Description Variable   **Table 1.** Definition Indicators

Variable	Indicators	Explain Indicators
Technology	T1: Number of digital devices	Refers to the number of digital technological devices used by teachers to facilitate the learning process
	T2: Teachers' pedagogical skills in integrating digital tools	This relates to a teacher's skills in integrating digital tools in the learning process
	T3: Effective Online Learning Platform	This indicator relates to online learning platforms or systems that are considered efficient in delivering learning material and offering interaction between instructors and students
Multicultural	M1: Study the culture of various countries	This indicator intends to encourage research or study the culture of various countries. This involves observing and analyzing the differences in cultural characteristics, customs and normative values that exist in each country
	M2: Study cultural differences	The purpose of this indicator is to direct the exploration of cultural differences, including views, habits and etiquette values that exist in certain societal groups
	M3: Organizing multicultural learning	This relates to the process of planning and implementing learning activities that involve cultural elements or content from various ethnic groups

RESULT AND DISCUSSION

Chi-Square Test   **Table 2.** Chis-Square Value

Model	X2	DF	Prob
Baseline Model	1287.413	15	0.457
Factor Model	7.766	8	0.345

Table 1 above can be analyzed further, showing that the high X2 value (1287.413) indicates that there are significant differences between the models tested. However, if we look at the high probability value (0.457 > 0.05), it shows that it is not enough to process H0 so that H1 is accepted, which means this model is not good enough at explaining the data. Then, in terms of model factors, the low X2 value of 7.7766 shows that this model is more relevant to the baseline model data, and the probability value of 0.345, which can be affirmed to reject H0 and H1, is accepted. These results indicate that the factor model seems to be better than the baseline model in explaining the data. This shows that the application of multicultural learning as an effort to instill technology-based tolerance and character values in elementary schools can be better represented by the factor model compared to the basic model.

Additional fit measures   **Table 3.** Additional Value

Index	Value
Comparative Fit Index (CFI)	1.000
Tucker-Lewis Index (TLI)	1.000
Bentler-Bonett Non-normed Fit Index (NNFI)	1.000
Bentler-Bonett Normed Fit Index (NFI)	0.994
Parsimony Normed Fit Index (PNFI)	0.530
Bollen's Relative Fit Index (RFI)	0.989

Table 2 collects the fit index values which can be concluded that CFI, TLI, NNFI, and RNI all have a value of 1,000, indicating that the model fits the data very well. If seen from the NFI value of 0.994, it can be interpreted as a very good match. However, if we look at the PNFI it has 0.530, which indicates that this model is complex for the amount of data available. Thus, the baseline model has a high Chi-Square value with a high probability, the factor model has much better fit indices, therefore, this model shows good agreement with the data. So it can be concluded that the application of multicultural learning as an effort to instill technology-based tolerance character values in elementary schools may be better represented by the Factor Model

R-Squared

Table 4. R-Squared Value

Indicators	R2
T1	0.813
T2	0.718
T3	0.845
M1	0.959
M2	0.507
M3	0.585

Basically, R-squared shows how well the linear model is able to explain variations in the observed variables. The higher the R-squared value, the better the model is at explaining the data. Therefore, table 3 collects the r-squared value of each indicator used. The explanation of each indicator includes: T1 (number of digital devices): R-Squared = 0.813, meaning that approximately 81.3% of the variability in the number of digital devices can be explained by the linear model used in the analysis. T2 (teachers' pedagogical skills in integrating digital devices): R-Squared = 0.718, which indicates that approximately 71.8% of the variability in teachers' pedagogical skills in integrating digital devices can be explained by a linear model. Furthermore, T3 (Effective Online Learning Platform): R-Squared = 0.845; this result can be interpreted as approximately 84.5% of the variability in the effectiveness of online learning platforms can be explained by a linear model.

In addition, the multicultural variable, which is divided into three indicators, produces the respective R-squared values: M1 (studying the culture of various countries): R-Squared = 0.959, which means that as much as 95.9% of the variability in studying the culture of various countries can be explained by the linear model. Then, M2 (studying cultural differences): R-Squared = 0.507; this result shows that approximately 50.7% of the variability in studying cultural differences can be explained by the linear model. Lastly, indicator M3 (organizing multicultural learning): R-Squared = 0.585, so it can be interpreted that around 58.5% of the variability in organizing multicultural learning can be explained by the linear model.

Factor Loadings

Table 5. Factor Loading Value

Factor	Indicator	Standar Eror	Probability
Tekhnology	T1	0.049	001
	T2	0.046	001
	T3	0.051	001
Multicultural	M1	0.034	001
	M2	0.054	001
	M3	0.047	001

The data in Table 4 collects loading factor values. We can see that each indicator has a significant contribution to the technology factor. The higher the factor loading value, the greater the

contribution to that factor. All factor loading values also have very low probabilities (<.001), indicating the statistical significance of the relationship between indicators and factors.

Meanwhile, it can be understood that all indicators also have a significant contribution to the multicultural factor. The factor loading value of M2 (0.054) is the highest, followed by M3 (0.047) and M1 (0.034). All these factor loading values also have very low probabilities (<.001), indicating the statistical significance of the relationships between the indicators.

Therefore, technological and multicultural factors contribute significantly to the variability in the observed indicators.

Factor variances **Table 6.** Variances Value

Factors	Estimate	Std. Eror	Prob.	Lower	Upper
Technolgy	1.000	0.000	0.001	1.000	1.000
Multicultural	1.000	0.000	0.001	1.000	1.000

With the variance value of each factor being 1.000 and a very low probability (< 0.001), this indicates that the technological and multicultural factors have very low variability in the model. This high variance value indicates that these factors have a large influence on the observed variables. Additionally, since the factor estimate value for both factors is 1,000, this indicates that each unit increase in the technology or multicultural factors will be accompanied by a one-unit increase in the observed variables. This shows that these two factors are strongly connected to the observed variables (T1, T2, T3, M1, M2, and M3). Thus, these results corroborate previous findings that technological and multicultural factors have a significant contribution to the variability in the observed indicators and that these indicators are reliable in measuring these factors in the model.

Factor Covariances **Table 7.** Covariances Value

Variable	Estimate	Std. Eror	Z-Value	Prob.	Lower	Upper
Technology & Multicultural	0.360	0.051	7.052	0.001	0.260	0.460

The positive covariance value (0.360) indicates that there is a positive relationship between technology and multicultural factors in the model. This fact means that any increase in one factor will tend to be followed by an increase in other factors. The low standard error (0.051) indicates the accuracy of this estimate.

While the high Z-value (7.052) indicates that this covariance is statistically significant, the probability is very low (0.001). A fairly tight confidence interval (0.260–0.460) indicates our level of confidence in this covariance estimate. Thus, this analysis shows that there is a significant positive relationship between technology and multicultural factors in the proposed research model. In addition, these results show that an increase in the application of technology in learning is also associated with an increase in the application of a multicultural approach.

Residual Variances **Table 8.** Residual Variance Value

Variable	Indicators	Std. Eror	Probability
Technology	T1	0.030	001
	T2	0.029	001
	T3	0.033	001
Multicultural	M1	0.025	331
	M2	0.052	001
	M3	0.038	001

Based on the data processing results above, it can be concluded that the smaller the standard error value, the better the statistical model explains data variations. If we look at the standard values of T1, T2, T3, M2, and M3, it shows that the statistical model is able to explain the variation in the data, so it has a lower residual variance value. However, the M1 indicator shows standard error and probability values that are different from the other indicators, so it can be confirmed that this model is not optimal for explaining data variations.

The T1 indicator (number of digital devices) has a probability value of 0.001 <0.05, meaning that there are statistically significant results. In this context, these indicators can contribute directly to increasing students' tolerance values. Gokmen, and Zahriye (Altinay et al., 2017) revealed that increasing the use of technology in learning will trigger an increase in tolerance values. However, the thing that must be considered is that the use of technology must be used wisely. For example, classroom learning uses animated videos that reflect the value of tolerance towards followers of different religions. Likewise, Islam (2021) affirms that a learning model that uses cartoons in learning and focuses on multiculturalism will provide students with exposure to ideology and an understanding of various cultural aspects. Utilizing this strategy will be useful for building fundamental attitudes and exchanging cultural understanding, which in turn helps teachers build a mindset of the value of tolerance. Islam, (2021) also confirmed in his research that kartin could be a relevant choice to make it easier to teach multiculturalism motifs, which in turn will help students understand other people's cultural contexts.

The T2 indicator in this study shows a probability value of 0.001, which is below the significance of <0.05. Therefore, the author affirms that the higher the skills a teacher has in applying technology that leads to instilling the value of tolerance, the easier it is to provide concrete understanding to students. This fact is confirmed by the expressions of Michael Gerber (Gerber, 1988) and Ioanna (Palaiologou, 2020), who state that human resources are the main essence for building an understanding of the value of tolerance in society. This is because a broad understanding and deepening of knowledge regarding broad religious insight will create people who are wiser at viewing various perspectives. Therefore, the author reiterates that the role of technology is very urgent in responding to various phenomena caused by disruption so that it can direct society to strengthen togetherness and cohesive interactions. Therefore, in order to encourage the creation of technology-based, tolerant learning, it is important to strive for mastery of technology for teaching staff (Sakalli et al., 2021). Next, the result research Chuang et al., (2020) also proves that experience in how to apply technology in teaching has a positive impact in providing an understanding of multicultural values to elementary school students. Thus, mastery of technology has a central role in teaching a tolerant culture in the educational environment.

The T3 indicator in this study also showed significant results, as proven by a probability value of 0.01. These indicators relate to the efficiency of online learning using certain platforms. In the author's opinion, the phenomenon of the era of disruption has resulted in a shift in the paradigm, culture, and behavior of every human being. Digitalization is an era that encourages humans to complete work more efficiently. Thus, it is not surprising that the 21st century learning model focuses more on online platforms when you want to reach further afield. Apart from that, the online learning model does not hinder the acquisition of knowledge, especially by gaining a comprehensive understanding of the value of religious tolerance or moderation. Educational institutions can present quality speakers without having to interact directly with students. This will save energy and costs so that work that is considered heavy can be completed quickly. (Sakallı et al., 2021) and (Al Lily et al., 2020) also affirm that to promote education of tolerance and a culture of peace, it is important to create a learning climate that is facilitated by technology. He continued (Akdere et al., 2021) that in adapting digital-based learning models, every human resource must be able to adapt to these changes. This fact is caused by the double-edged nature of technology; besides being able to unite various youth through media campaigns, it can also create factions that result in a

breakdown in societal cohesion. Investigation Rahimi et al., (2024) revealed that basically the concept of online learning was applied more during a pandemic which limited human movement. However, this still has a positive impact in increasing multiculturalism learning through distance learning because of the high enthusiasm of the participants and the high level of instructors.

The results of special research on multicultural indicator 1, which is related to cultural understanding in various countries, did not show significant results (331 > 0.05). Therefore, the author can actually understand wisely that it is not easy to provide an integral understanding to students who are still studying in elementary school. In this context, it can be understood that cultivating cultural understanding in various countries must start slowly. The ability to think critically and open horizons of insight at elementary school age is still very difficult to develop. Sometimes only a handful of individuals are able to understand the material. Therefore, the author reiterates that one thing that can be used is to provide understanding slowly through technology and the ability of educators to build the insight of elementary school-age students. (Kim, 2020) also affirms that the integration of technology in providing culture-based media in various countries will make it easier to shape students' thinking patterns and understanding of styles and cultures in various countries. However, it is also necessary to provide mitigation for children so that they are wiser when studying or witnessing cultures in various countries. Moreover, children who are still at elementary school age are very vulnerable to being infected by a culture that should not be imitated. Onishchuk et al., (2020) affirming that understanding foreign cultures, for example in terms of language, will help increase understanding of the cultural diversity of other countries. The ability to master verbal communication is very necessary to form students' critical abilities in understanding cultural differences in various countries.

Next in the discussion is the M2 indicator, which shows a probability value of 0.001 <0.05. indicators related to "studying cultural differences (viewpoints, customs, habits, etc.)". This indicator makes a significant contribution to increasing tolerance values with the use of technology. These findings are in line with empirical studies (Hjerm et al., 2020), which confirm that a relevant approach in the study of tolerance is to conceptualize and measure acceptance, respect, and appreciation for the cultural diversity of other people. Basically, the M2 indicator is related to the way students view the habits around them, whether in the form of culture, customs, or rituals ordered in their respective religions. This indicator is a form of expansion of the previous indicator that if educators are able to stimulate the analytical skills and insight of each student to see more about cultures outside our country, in the end it will give birth to people who are wiser in seeing all the differences around them. Therefore, the author emphasizes again that every educational institution within the scope of elementary schools occasionally provides learning models based on foreign cultural studies in the form of videos about community habits or customs, which are carried out every year. This will certainly pique children's curiosity and encourage them to explore further their understanding of a particular culture. Various universities currently also provide culture majors, which can certainly be an asset for those who are interested in exploring this knowledge further. The words of (Dewantara & Nurgiansah, 2021) can be taken into consideration to indicate that multicultural education is increasingly important amidst ethnocentric attitudes and various forms of discrimination in the field of education. Therefore, the main task of realizing tolerant regeneration is through an educational model decorated with the spirit of spiritual processes integrated with religious subjects (Kadirova, 2023). The current reality is that it is important for cultural diversity in the curriculum and tasks educators to facilitate the development of cultural competence among students (Fuentes et al., 2021).

The M3 indicator in this study also showed significant results. This fact can be seen from the probability value of 0.001 <0.05. These results have a significant impact, namely that the greater the level of multicultural learning, the greater the self-confidence to realize the formation of tolerance values. This research is relevant to empirical studies (Firdaus et al., 2020) and (S. Aslan & Aybek, 2020), which conclude that the internalization of multicultural values is realized through

education as a rebuttal to factions that are intolerant. One strong proof of why it is important to instill multicultural education in every student starting from elementary school is that the lives of the nation and state are currently being undermined by various religious issues that reinforce each other and claim each other's truths. Each faction tries to spread its own teachings and understanding, and sometimes the truth is only on its side, while other factions consider it to be on the path of error. Apart from that, in the Indonesian context, religion is an important aspect that is the basic purpose of people's lives; therefore, it is important to instill a strong foundation that the essence of the teachings of every religion is respect for human dignity. Every human being has the right to embrace a religion according to his or her beliefs and is not permitted to be hostile to one another (Ishak et al., 2022). The essence of religion teaches us to help each other without distinguishing between race, ethnicity, and culture. Even though there are differences in ritual worship, in the name of human principles, we are one (Yazdani, 2020).

CONCLUSION

Based on the analysis of PISA 2018 data, the implementation of multicultural learning as a step in cultivating technology-based tolerance and character values shows positive results. The model used has a good level of conformity with the data; multicultural learning factors and technology have a significant contribution in explaining variations in the character of tolerance; indicators related to multicultural learning have a significant relationship with the factors measured; and there is a positive relationship between technology factors. and multicultural. However, there are different residual variations between the indicators. These results show the importance of implementing multicultural learning to increase character tolerance through the massive use of technology. This factor cannot be separated from the diversity inherent in the Indonesian nation as a pluralistic country: ethnicity, race, and culture, as well as various cultural data from Sabang to Merauke. Summarizing the results of previous research and empirical studies, the author emphasizes that the current concept of modern education requires a multicultural approach to alleviate problems related to the emergence of intolerant groups. However, to uproot these roots, it is necessary to integrate and internalize the strengthening of the value of tolerance through an education system that results in the structuring of a competent civil society. The position of using technology in this context is as a very effective means of supporting the implementation of multicultural learning as an effort to foster the values of tolerance and positive character in the younger generation. By using technology wisely and innovatively, education can become more inclusive, stimulate students' interest in learning, and prepare them for life in an increasingly complex and culturally diverse society.

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