

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

Yuni Listiarini¹, Salman Al-Farisi²

^{1,2}PGSD, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Nahdlatul Ulama Kalimantan Barat, Indonesia

ABSTRACT: This study aims to examine how local wisdom-based traditional music learning can enhance creativity and critical thinking among Elementary Teacher Education (PGSD) students in West Kalimantan, Indonesia. A Mixed Methods Research (MMR) approach was employed using a Sequential Explanatory Design. The study adopted a quasi-experimental design that divided students into two groups: an experimental group and a control group. To ensure the data met the required assumptions, normality, homogeneity, and independent sample t-tests were conducted. Data analysis was performed using SPSS, including multiple linear regression tests. The results of the multiple regression analysis revealed that understanding and contributing to local wisdom significantly influence students' creativity and critical thinking, with the "contribution of local wisdom" having the strongest effect on both variables. These findings suggest that educational practices integrating local wisdom values more deeply can enhance students' cognitive skills, particularly in creative and critical thinking domains. However, despite its positive influence, the effect of local wisdom alone was not sufficiently significant to be considered the dominant factor.

KEYWORDS: Critical Thinking, Creativity, Traditional Music, Local Wisdom, Learning.

I. INTRODUCTION

Traditional music represents an essential part of Indonesia's cultural heritage, embodying educational, aesthetic, and historical values that are vital for cultural continuity. In West Kalimantan, traditional instruments such as Sape', Gong, and Tuma' have been passed down through generations. However, rapid globalization and the dominance of popular and digital music have marginalized the existence of traditional music, especially among younger generations. Among Elementary Teacher Education (PGSD) students, the understanding and appreciation of traditional music remain relatively low. Many students perceive instruments such as the Sape' as outdated or irrelevant to contemporary learning contexts. Traditional music education in higher education institutions often remains theoretical, with limited practical sessions and minimal use of digital technology as instructional media. This lack of innovation affects student motivation, engagement, and learning outcomes (Vygotsky, 1978; Bruner, 1966).

Previous studies have demonstrated that culture-based learning significantly shapes students' character and strengthens their understanding of local wisdom values (Suparno, 2021). Integrating cultural elements into music education enhances students' affective and aesthetic abilities (Purwanto et al., 2020). According to constructivist theory, learning that connects knowledge to cultural experiences and local contexts encourages deeper engagement and cognitive development.

Furthermore, interactive digital technology offers vast potential for innovating traditional music education. Tools such as digital music applications, augmented reality (AR), and multimedia platforms enable the delivery of culturally relevant and interactive content. Multimedia-based instructional design supports comprehension through the integration of text, sound, and visuals (Mayer, 2009), aligning with the Cognitive Theory of Multimedia Learning. Additionally, the Technological Pedagogical and Content Knowledge (TPACK) framework emphasizes the synergy between technology, pedagogy, and content knowledge in improving learning effectiveness (Mishra & Koehler, 2006). Empirical findings have shown that TPACK-based digital learning increases teaching quality and student motivation (Setiawan & Anwar, 2022).

Hwang et al. (2019) found that AR-based art education fosters student engagement, retention, and knowledge transfer. Thus, integrating digital technology into traditional music education can not only enrich the learning experience but also cultivate students' creativity and critical thinking. Critical thinking enables students to analyze and evaluate traditional music more deeply (Paul & Elder, 2006), while creativity encourages reinterpretation of cultural heritage in contemporary forms (Torrance, 1974).

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

Accordingly, this study aims to investigate how local wisdom-based traditional music learning influences creativity and critical thinking among PGSD students in West Kalimantan.

II. RESEARCH METHOD

This study employed a Mixed Methods Research (MMR) approach with a Sequential Explanatory Design, integrating quantitative and qualitative data to provide a comprehensive understanding of the research problem. Data were collected through a creativity test, a critical thinking test, and a questionnaire assessing students' perceptions of local wisdom. Both primary and secondary data were utilized: primary data were obtained from interviews and questionnaires administered to Elementary Teacher Education (PGSD) students, while secondary data were gathered through observation and documentation.

Using a quasi-experimental design, participants were divided into experimental and control groups. To verify that the data met the required assumptions, statistical analyses including normality, homogeneity, and independent samples t-tests were conducted. Further analysis employed multiple linear regression using SPSS to identify the influence of local wisdom-based learning on students' creativity and critical thinking.

III. DISCUSSION

Before proceeding to the main discussion, which aims to examine how local wisdom-based traditional music learning can enhance the creativity and critical thinking of Elementary Teacher Education (PGSD) students, several statistical tests were conducted to ensure the validity and reliability of the data used in the analysis. Therefore, to confirm that the data met the required assumptions, a series of statistical tests were performed, including the normality test, homogeneity test, and independent samples t-test.

1. Normality Test

The normality test applied in this study was the Shapiro–Wilk test, selected because the sample size was fewer than 100 participants. The Shapiro–Wilk test is preferred for small sample sizes as it provides greater sensitivity in detecting deviations from normality compared to other tests, such as the Kolmogorov–Smirnov test.

Tabel 1. Uji Normalitas

Kreativitas	Shapiro Wilk	
	Sig. Control Group	Sig. Experimental Group
Fluency	0.348	0.596
Flexibility	0.119	0.137
Originality	0.290	0.106
Elaboration	0.373	0.165
Berpikir Kritis		
Analisis	0.451	0.265
Evaluasi	0.176	0.13
Penalaran Logis	0.063	0.186
Interpretasi	0.147	0.06
Refleksi	0.083	0.193
Pengambilan Keputusan	0.164	0.281
Persepsi Mahasiswa		
Pemahaman Kearifan Lokal	0.368	0.091
Relevansi Kearifan Lokal	0.191	0.072
Pengaruh Kearifan Lokal	0.401	0.089
Kontribusi Kearifan Lokal	0.299	0.104

Based on the results of the Shapiro–Wilk normality test, most of the variables tested in both the control and experimental groups showed significance (Sig.) values greater than 0.05, indicating that the data in both groups were normally distributed. This includes the dimensions of creativity (fluency, flexibility, originality, elaboration), critical thinking (analysis, evaluation, logical reasoning, interpretation, reflection, decision-making), and students' perceptions of local wisdom (understanding, relevance, influence, and contribution). Therefore, it can be concluded that the data did not exhibit any significant deviation from the normal distribution, allowing for further parametric statistical analyses such as group comparison tests.

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

2. Homogeneity Test

The Levene's test was employed in this study to examine whether the variances between the compared groups were equal (homogeneous). This test was selected because it is more robust in assessing homogeneity of variances, even when the data do not strictly follow a normal distribution. The criterion for the Levene's test is that when $p > 0.05$, the null hypothesis is accepted (indicating equal variances), whereas when $p < 0.05$, the null hypothesis is rejected (indicating unequal variances).

Tabel 2. Uji Levene untuk Kreativitas, Berpikir Kritis, dan Persepsi Mahasiswa terhadap Kearifan Lokal

Kreativitas	Levene Test	Sig
Fluency	0.815	
Flexibility	0.055	
Originality	0.131	
Elaboration	0.354	
Berpikir Kritis		
Analisis	0.162	
Evaluasi	0.072	
Penalaran Logis	0.862	
Interpretasi	0.072	
Refleksi	0.051	
Pengambilan Keputusan	0.321	
Persepsi Mahasiswa		
Pemahaman Kearifan Lokal	0.189	
Relevansi Kearifan Lokal	0.08	
Pengaruh Kearifan Lokal	0.205	
Kontribusi Kearifan Lokal	0.802	

3. Independent Sample t Test

The Independent Samples t-Test is a statistical test used to compare the mean scores of two independent groups to determine whether there are statistically significant differences between them. If the p -value is less than 0.05, the null hypothesis is rejected, indicating that there is a significant difference between the groups. Conversely, if the p -value is greater than 0.05, the null hypothesis is not rejected, indicating that there is no statistically significant difference between the two groups.

Tabel 3. Independent Sample t Test

Kreativitas	Independent Samples Test	
	t	Sig. (2 tailed)
Fluency	-4.731	<,001
Flexibility	-8.684	<,001
Originality	-9.377	<,001
Elaboration	-7.693	<,001
Berpikir Kritis		
Analisis	-9.166	<,001
Evaluasi	-9.652	<,001
Penalaran Logis	-10.588	<,001
Interpretasi	-9.28	<,001
Refleksi	-9.474	<,001
Pengambilan Keputusan	-8.568	<,001
Persepsi Mahasiswa		

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

Pemahaman Kearifan Lokal	-12.469	<,001
Relevansi Kearifan Lokal	-10.799	<,001
Pengaruh Kearifan Lokal	-12.544	<,001
Kontribusi Kearifan Lokal	-11.231	<,001

Based on the results of the Independent Samples t-Test, all tested variables including creativity, critical thinking, and students' perceptions of local wisdom showed significant differences between the two groups (control and experimental), as indicated by *p*-values less than 0.001. Since all *p*-values were below the 0.05 threshold, the null hypothesis was rejected. It can therefore be concluded that there were statistically significant differences between the groups in terms of creativity, critical thinking, and their perceptions of local wisdom.

4. Multiple Linear Regression Analysis

Before conducting the multiple linear regression analysis, several classical assumptions were tested, including normality, multicollinearity, heteroscedasticity, and autocorrelation. The results of the normality test indicated that the data points on the Normal P-P Plot closely followed the diagonal line, suggesting that the data were normally distributed. The multicollinearity test showed that all independent variables understanding, relevance, influence, and contribution of local wisdom had Tolerance values above 0.10 and Variance Inflation Factor (VIF) values below 10.00, indicating no multicollinearity issues. The heteroscedasticity test demonstrated that the data points were randomly scattered above and below the zero line on the Y-axis, suggesting the absence of heteroscedasticity. Hence, all classical assumptions were met, ensuring the reliability of the regression analysis.

The next step involved examining the coefficient of determination (R-squared). As presented in Table 4, the R-squared values indicated that the independent variables explained 32.9% of the variance in creativity and 36.1% of the variance in critical thinking, while the remaining variance could not be explained by the model. The Adjusted R-squared values showed a slight reduction in explanatory power after being adjusted for the number of predictors, as presented in Table 4.

Tabel 4. R Square

	R	R Square	Adjust R Square
Kreativitas	0.574	0.329	0.299
Berpikir Kritis	0.601	0.361	0.332

Furthermore, a simultaneous F-test (ANOVA) was performed, showing that understanding, relevance, influence, and contribution of local wisdom had a joint effect on the creativity and critical thinking of Elementary Teacher Education (PGSD) students. The significance value was less than 0.001, indicating that the overall model was statistically significant.

Tabel 5. Anova (Kreativitas)

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.62493253	4	9.156233132	10.80079	<,001 ^b
	Residual	74.60087393	88	0.847737204		
	Total	111.2258065	92			
a. Dependent Variable: Kreativitas						
b. Predictors:(Constant), Pemahaman Kearifan Lokal, Relevansi Kearifan Lokal, Pengaruh Kearifan Lokal, dan Kontribusi Kearifan Lokal						

Tabel 6. Anova (Berpikir Kritis)

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.031	4	7.075	12.410	<.001 ^b
	Residual	50.172	88	0.570		
	Total	78.473	92			

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

a. Dependent Variable: Berpikir Kritis

b. Predictors: (Constant), Pemahaman Kearifan Lokal, Relevansi Kearifan Lokal, Pengaruh Kearifan Lokal, dan Kontribusi Kearifan Lokal

The final step involved conducting a t-test to examine the significance of the effect of each independent variable on the dependent variables individually variabel dependen secara individu. The results of the t-test can be seen in Tables 7 and 8.

Tabel 7. T-Test (Kreativitas)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.796	0.443		1.794	0.076
Pemahaman_Kearifan_Lokal	0.169	0.082	0.184	2.050	0.043
Relevansi_Kearifan_Lokal	0.234	0.079	0.267	2.961	0.003
Pengaruh_Kearifan_lokal	0.158	0.085	0.167	1.865	0.065
Kontribusi_Kearifan_Lokal	0.289	0.075	0.345	3.834	0.000

Based on Table 7, it can be concluded that understanding, relevance, and contribution of local wisdom have a significant effect on the creativity of Elementary Teacher Education (PGSD) students, while the variable influence of local wisdom, although positive, was not significant at the 0.05 level. Among the independent variables tested, the contribution of local wisdom demonstrated the strongest influence on students' creativity. Among the independent variables tested, the contribution of local wisdom exhibited the strongest influence on students' creativity. Therefore, the regression model can be formulated as follows can be written as follows:

Tabel 8. T-Test (Berpikir Kritis)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.337	0.364		3.676	<,001
Pemahaman_Kearifan_Lokal	0.398	0.068	0.514	5.860	<,001
Relevansi_Kearifan_Lokal	-0.004	0.065	-0.006	-0.069	0.945
Pengaruh_Kearifan_lokal	0.094	0.070	0.118	1.348	0.181
Kontribusi_Kearifan_Lokal	0.161	0.062	0.228	2.591	0.011

In addition, based on Table 8, it can be concluded that understanding and contribution of local wisdom have a significant influence on the critical thinking of Elementary Teacher Education (PGSD) students, whereas relevance and influence of local wisdom do not have a significant effect on critical thinking.

5. The Influence of Local Wisdom-Based Learning on the Creativity of Elementary Teacher Education (PGSD) Students

Based on the results of the multiple linear regression analysis presented in Table 18, it can be concluded that understanding of local wisdom, relevance of local wisdom, and contribution of local wisdom have a significant influence on the creativity of Elementary Teacher Education (PGSD) students. This analysis was derived by considering both the unstandardized and standardized coefficients, which indicate the extent to which each independent variable contributes to students' creativity.

The results of the analysis showed that understanding of local wisdom ($B = 0.169$, $p = 0.043$) had a positive effect on creativity, meaning that the better the students' understanding of local wisdom, kearifan the higher their level of creativity. This finding is consistent with the results of Teng et al. (2018), which indicated that understanding cultural values and local wisdom can broaden students' perspectives and encourage them to think innovatively. Learning that integrates local wisdom provides students with a deeper understanding and stimulates new ideas in creating traditional musical works (Zanazzi, 2017).

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

In addition, the relevance of local wisdom ($B = 0.234, p = 0.003$) also showed a significant influence on creativity. The more relevant students perceived local wisdom-based learning to be, the higher the level of creativity they demonstrated. Learning experiences that are perceived as relevant to students' social and cultural contexts enhance their engagement in the learning process, encouraging them to think more flexibly and exploratively. Interview results from this study also support this finding, indicating that students felt freer and more flexible in shifting between different traditional music ideas, thanks to the digital technology-based learning approach that allowed them to explore various musical methods and elements. In line with this, Hofstede (2011) noted that relevance in culturally grounded learning can strengthen students' sense of ownership toward the material being studied, which in turn mendorong mahasiswa untuk bereksplorasi lebih jauh dan berkreasi (Triandis & Hofstede, 1993).

On the other hand, the contribution of local wisdom ($B = 0.289, p = 0.000$) had the most significant influence on students' creativity. This indicates that the active integration of local wisdom in the learning process greatly contributes to encouraging students to become more creative. Students who were directly involved in learning activities that incorporated local wisdom demonstrated higher levels of creativity. Findings from the interviews also support this result, revealing that students felt more confident in creating original and unique musical works, facilitated by the use of digital technology that enabled them to explore new ideas. Gibson (2010) supports this theory, asserting that learning which integrates elements of local culture can enhance student engagement and stimulate them to think more creatively and innovatively.

Although local wisdom ($B = 0.158, p = 0.065$) showed a positive effect, its influence on students' creativity was not statistically significant at the 0.05 level. This suggests that while local wisdom may contribute to creativity, its impact is likely more complex and mediated by other factors such as students' personal experiences, social context, and the teaching methods employed. Although cultural influences have the potential to enhance creativity, such effects are often shaped by broader individual and social contexts (Tomi & Su, 2025).

Overall, these findings highlight the importance of integrating local wisdom into the learning process to enhance the creativity of Elementary Teacher Education (PGSD) students. Understanding, relevance, and contribution of local wisdom positively influence students' creativity, particularly when learning is supported by digital technology that facilitates the exploration of creative ideas. This study provides valuable insights for the development of a PGSD curriculum that is more grounded in local wisdom and serves as a guideline for designing more innovative learning strategies in primary teacher education.

6. The Influence of Local Wisdom-Based Learning on the Critical Thinking of Elementary Teacher Education (PGSD) Students

Based on the results of the multiple linear regression analysis presented in the table above, this analysis aimed to examine the effects of the variables understanding of local wisdom, relevance of local wisdom, influence of local wisdom, and contribution of local wisdom on the critical thinking abilities of Elementary Teacher Education (PGSD) students. The regression results indicate that understanding of local wisdom has a significant effect on critical thinking, with a coefficient of $B = 0.398$ and a significance value of $p < 0.001$ ($p < 0.05$). This means that the better students understand local wisdom, the higher their level of critical thinking. Previous studies also support this finding, suggesting that a deep understanding of local culture can broaden students' perspectives and enhance their ability to analyze and evaluate information critically (Hikmawati et al., 2020). Understanding local culture not only provides students with theoretical knowledge but also encourages them to think more innovatively and critically in responding to challenges (Wahyudi et al., 2025). However, the relevance of local wisdom did not show a significant effect on critical thinking, with a coefficient of $B = -0.004$ and a significance value of $p = 0.945$ ($p > 0.05$). The very small B value and high p -value indicate that although the relevance of local wisdom-based learning is considered important in the educational process, its influence on students' critical thinking skills was not statistically significant. This may be attributed to other factors, such as students' personal motivation or learning experiences, which play a more dominant role in enhancing critical thinking abilities (Triandis & Hofstede, 1993). Although the relevance of local wisdom-based learning remains important, external factors appear to have a stronger influence on the development of students' critical thinking (Lahmar, 2020).

Furthermore, in the dimension of the influence of local wisdom, the coefficient of $B = 0.094$ and the significance value of $p = 0.181$ ($p > 0.05$) indicate that the influence of local wisdom was not significant on the critical thinking of Elementary Teacher Education (PGSD) students. Although there was a tendency for the influence of local wisdom to enhance critical thinking, the effect was not strong enough to be considered statistically significant. Other factors, such as students' learning experiences or personal knowledge, may play a greater role in shaping their critical thinking skills (Tomi & Su, 2025). Therefore, the role of local wisdom in learning needs to be examined more deeply by taking into account the social and individual contexts of the students (Bali, 2015). On the other hand, the contribution of local wisdom showed the most significant effect on critical thinking, with a coefficient of $B = 0.161$ and a significance value of $p = 0.011$ ($p < 0.05$). This result indicates that the greater the contribution of local wisdom integrated into the learning process, the higher the level of students' critical thinking. This finding supports the theory that learning which incorporates elements of local culture can enrich students' learning experiences and

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

encourage them to think more critically and creatively (Gibson, 2010). The contribution of local wisdom encourages students to integrate local knowledge with critical thinking in solving problems and making decisions, thereby enhancing their overall critical thinking skills (Pamungkas et al., 2023).

Overall, the results of the regression analysis indicate that understanding of local wisdom and contribution of local wisdom have a significant positive effect on the critical thinking of Elementary Teacher Education (PGSD) students, with the contribution of local wisdom showing the strongest influence. Meanwhile, although the influence of local wisdom exhibited a positive direction, its effect was not strong enough to be considered a major factor affecting students' critical thinking. These findings suggest that the direct contribution of local wisdom-based learning is more effective in enhancing students' critical thinking skills than merely understanding or perceiving the relevance of local wisdom itself (Helskog, 2019).

CONCLUSIONS

Overall, the results of the multiple linear regression analysis indicate that understanding and contribution of local wisdom have a significant influence on both the creativity and critical thinking of Elementary Teacher Education (PGSD) students, with the contribution of local wisdom showing the strongest effect on both variables. This suggests that learning which deeply integrates the values of local wisdom can enhance students' critical thinking and creativity skills, whereas the influence of local wisdom, although positive in direction, was not strong enough to be considered a major contributing factor. Based on these findings, several recommendations for the development of PGSD learning can be proposed. These include a deeper integration of local wisdom into the curriculum to enhance students' creativity and critical thinking, with a particular focus on the contribution of local wisdom and on strengthening its relevance to students' real-life contexts. In addition, interactive project-based teaching methods should be employed to deepen practical understanding, and regular evaluations are necessary to optimize learning outcomes in terms of creativity and critical thinking.

ACKNOWLEDGMENT

The author would like to express sincere gratitude to the Directorate General of Higher Education, Research, and Technology, Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia, and to the Nahdlatul Ulama University of West Kalimantan for their invaluable support and contribution to this research.

REFERENCES

- 1) Bali, M. (2015). Critical Thinking through a Multicultural Lens: Cultural Challenges of Teaching Critical Thinking. In *The Palgrave Handbook of Critical Thinking in Higher Education*. https://doi.org/10.1007/978-1-137-37805-7_20
- 2) Bruner, J. S. (1966). *Toward a theory of instruction*. Harvard University Press.
- 3) Gibson, R. (2010). Points of departure: The "art" of creative teaching: Implications for higher education. *Teaching in Higher Education*, 15(5). <https://doi.org/10.1080/13562517.2010.493349>
- 4) Hikmawati, H., Suastra, I. W., & Pujani, N. M. (2020). Ethnoscience-Based Science Learning Model to Develop Critical Thinking Ability and Local Cultural Concern for Junior High School Students in Lombok. *Jurnal Penelitian Pendidikan IPA*, 7(1). <https://doi.org/10.29303/jppipa.v7i1.530>
- 5) Hwang, G. J., Yang, S. J. H., & Wang, S. Y. (2019). A case study of applying augmented reality in arts education: Implications for the development of creativity and critical thinking skills. *Computers & Education*, 137, 28-38. <https://doi.org/10.1016/j.compedu.2019.04.008>
- 6) Lahmar, F. (2020). Religions | Free Full-Text | Islamic Education: An Islamic "Wisdom-Based Cultural Environment" in a Western Context. *Religions*.
- 7) Mayer, R. E. (2009). *Multimedia learning* (2nd ed.). Cambridge University Press.
- 8) Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017-1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
- 9) Pamungkas, J., Harun, & Manaf, A. (2023). A Systematic Review and Meta-Analysis Group Contrasts: Learning Model Based on Local Cultural Wisdom and Student Learning Outcomes. *International Journal of Instruction*, 16(2). <https://doi.org/10.29333/iji.2023.1624a>
- 10) Paul, R., & Elder, L. (2006). *Critical thinking: Tools for taking charge of your learning and your life* (3rd ed.). Pearson Prentice Hall.
- 11) Suparno, S. (2021). The role of culture-based learning in shaping students' character and understanding of local wisdom values. *Journal of Educational Research*, 12(3), 45-52. <https://doi.org/10.1016/j.jer.2021.04.004>
- 12) Tomi, S., & Su, Z. (2025). A systematic review of the impact of cultural intelligence on expatriates' behavior and outcomes: state of knowledge and research directions. *Journal of Global Mobility*, 1–31. <https://doi.org/https://doi.org/10.1108/JGM-02-2025-0019>

The Influence of Creativity and Critical Thinking Levels of Elementary Teacher Education Students on Local Wisdom-Based Traditional Music Learning

- 13) Torrance, E. P. (1974). Encouraging creativity in the classroom. Prentice-Hall
- 14) Triandis, H. C., & Hofstede, G. (1993). Cultures and Organizations: Software of the Mind. Administrative Science Quarterly, 38(1). <https://doi.org/10.2307/2393257>
- 15) Wahyudi, A. B. E., Salimi, Moh., Hidayah, R., Surya, A., Suhartono, & Wahyono. (2025). Local wisdom-based science e-module to improve cultural literacy and critical thinking skills of elementary school students. Journal of Education for Sustainability, 3(3), 387–395. <https://doi.org/https://doi.org/10.62672/joease.v3i3.91>
- 16) Zanzazi, S. (2017). Cultural Intelligence and Creativity: The Experience of Trainees Abroad. *International Research in Higher Education*, 2(2). <https://doi.org/10.5430/irhe.v2n2p33>



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.