



IMPLEMENTATION OF THE GAME BASED LEARNING (GBL) MODEL IN CIVIC EDUCATION TO IMPROVE UNDERSTANDING OF PANCASILA VALUES AT SANGGAR BIMBINGAN KEPONG, MALAYSIA

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ABSTRACT

This research was motivated by the low level of understanding of Pancasila values among students at Sanggar Bimbingan Muhammadiyah Kepong, Malaysia. The purpose of this study is to examine the effectiveness of the Game Based Learning (GBL) model in enhancing students' comprehension of Pancasila values within Civic Education. A quantitative method was used, employing a one-group pretest-posttest design. Data were collected through a written test consisting of 20 items and analyzed using a paired sample t-test. The results revealed a significant increase in the average score from 51.15 to 81.15, with a p-value < 0.05. It can be concluded that the GBL model is effective in significantly improving students' understanding of Pancasila values and is particularly relevant for application in non-formal education settings abroad.

Keywords: Game Based Learning; Civic Education; Pancasila Values

1. INTRODUCTION

The limited understanding of Pancasila values among Indonesian students abroad remains a significant concern, especially in non-formal learning settings such as Sanggar Bimbingan Muhammadiyah Kepong, Malaysia. Preliminary test results show that students' comprehension of the five principles of Pancasila is still low, with an average score of only 51.15, indicating that the essence of Pancasila as a national ideology has not been fully internalized (Purwaningsih & Kanukisya, 2023; Suhendar et al., 2024). This problem is closely related to Civics (PPKn) instruction, which predominantly relies on conventional, teacher-centered methods. Such approaches often result in passive learning and fail to engage students in meaningful civic reflection (Faizan & Abidin, 2025; Saragih et al., 2025).



Previous studies in character and civic education also reveal that didactic teaching models tend to emphasize moral instruction at the surface level, with limited impact on deeper value internalization (Anggriawan, 2024; Ardoin et al., 2023). Moreover, the lack of interactive and affective learning strategies further constrains students' ability to connect abstract values with real-life applications (Brennan & King, 2022; Wiratama, 2024). This gap highlights the need for a transformative pedagogical model that promotes active participation, reflection, and contextualized value application.

In response, this study investigates the effectiveness of the Game Based Learning (GBL) model in strengthening students' understanding of Pancasila values within Civics instruction at Sanggar Bimbingan Muhammadiyah Kepong. GBL is selected for its potential to create dynamic, student-centered learning environments through simulation, role-play, and problem-solving activities (Shofyana et al., 2024; Hwang et al., 2025). By integrating interactivity and engagement, this approach is expected to foster both cognitive and affective dimensions of learning, enabling students to better comprehend and internalize civic values.

This research, therefore, seeks to address a clear educational gap: the limited effectiveness of conventional Civics teaching methods in non-formal, transnational contexts. The findings are expected to contribute both theoretically by providing empirical evidence on the relevance of GBL in value-based education and practically, by offering educators innovative strategies to strengthen national identity and civic awareness among Indonesian learners abroad.

Definition of Game Based Learning

Game Based Learning (GBL) is an instructional model that incorporates the elements and mechanics of games into the learning process with the aim of enhancing student engagement and comprehension. GBL is designed not merely to entertain, but to stimulate active learning through structured gameplay that aligns with specific educational goals (Shaheen et al., 2023; Suhendar & Halimi, 2023). This model emphasizes interactivity, challenge, feedback, and motivation components inherent to games that have been shown to significantly affect learners' cognitive and emotional involvement. As an innovative pedagogy, GBL challenges traditional classroom settings by repositioning students as active agents in constructing their own understanding, rather than passive recipients of information. The learning environment becomes more dynamic, student-centered, and exploratory. This shift is especially relevant for 21st-century education, which demands not only knowledge acquisition but also the development of problem-solving skills, critical thinking, and collaboration among students (Suhendar, Syam, et al., 2023; Thornhill-Miller et al., 2023).

Manifestations of Game Based Learning

The application of Game Based Learning in educational practice manifests through the use of educational games both digital and analog designed with specific learning outcomes in mind. GBL can take the form of quiz competitions, role-playing simulations, matching games, strategy-based games, and even virtual reality experiences. Each format integrates curriculum content into gameplay mechanics, allowing learners to engage with material in a meaningful and interactive way (Trinh et al., 2024). Effective implementation of GBL requires alignment between game design and learning objectives, as well as a clear structure that fosters reflection, feedback, and progression. In character and values education, GBL is particularly powerful because it situates learners in real-world scenarios where they must make decisions, consider consequences, and reflect on ethical dilemmas. These experiences bridge the gap between abstract values and practical application. Moreover, GBL enhances learner autonomy and collaborative learning, promoting a classroom culture where students are actively engaged not only with content but also with peers, fostering social and moral development alongside academic achievement.

Definition of Civic Education (PPKn)

Civic Education, known in the Indonesian context as Pendidikan Pancasila dan Kewarganegaraan (PPKn), is a discipline focused on the development of civic knowledge, civic skills, and civic dispositions rooted in national ideology. It aims to cultivate a sense of national identity, democratic values, legal awareness, and active citizenship among learners. PPKn integrates various domains political, legal, social, and moral into its curriculum, thereby positioning itself as a foundational subject in character education. The core objective is to prepare students not only to understand their rights and responsibilities as citizens but also to internalize and practice values such as justice, democracy, and tolerance in everyday life (O'Cadiz et al., 2023). PPKn emphasizes critical thinking and participatory learning as strategies for developing students' awareness and involvement in civic matters. In practice, however, challenges persist in achieving deep civic understanding, particularly when instruction remains overly focused on memorization of theoretical content rather than engagement with real-life civic issues.

Manifestations of Civic Education (PPKn)

The practical implementation of PPKn in the classroom involves not only delivering content about state ideology, laws, and governance structures, but also promoting critical reflection, dialogue, and problem-solving. Activities such as debates, simulations of democratic processes, collaborative projects, and service learning represent key manifestations of effective civic education. These approaches aim to transform civic knowledge into civic competence by actively



involving students in issues that affect their communities. Moreover, integrating local cultural contexts and real-life scenarios helps students connect abstract concepts to their lived experiences (Rustandi et al., 2024; Ukur et al., 2025). In character-focused topics such as Pancasila values, pedagogical strategies should move beyond textbook definitions to promote application in ethical dilemmas, social participation, and community involvement. Effective PPKn not only informs but also transforms learners into responsible, reflective, and engaged citizens.

Definition of Pancasila Values

Pancasila values represent the philosophical and ideological foundation of the Indonesian nation, comprising five core principles: belief in one God, humanitarianism, national unity, democracy, and social justice. These values are not only constitutional mandates but also cultural expressions of the Indonesian identity. Educationally, they are taught as guiding principles for behavior, decision-making, and national engagement. The essence of Pancasila values lies in their integrative nature linking personal morality, civic responsibility, and collective harmony. Teaching these values aims to foster ethical reasoning, empathy, and national loyalty in students (Triff, 2024). However, the abstraction of these values poses a pedagogical challenge. Many students may memorize the five principles without fully grasping their meaning or relevance in contemporary society. Therefore, pedagogical innovation is necessary to translate these ideological tenets into meaningful learning experiences that resonate with students' lives.

Manifestations of Pancasila Values in Education

In educational contexts, the manifestation of Pancasila values occurs through both explicit instruction and the hidden curriculum. Explicitly, these values are embedded in PPKn learning objectives and are taught through modules, assessments, and discussions. Implicitly, the school environment, teacher behavior, and institutional policies serve as modeling agents of Pancasila-based conduct. Pedagogically, integrating values into learning experiences such as storytelling, role-playing, community projects, and digital games has proven effective in bridging abstract ideology with personal engagement (Lin et al., 2024). In GBL, for instance, students are presented with decision-making scenarios that require them to reflect on justice, fairness, unity, or compassion thereby making the values of Pancasila not only understood, but also enacted. Such manifestations ensure that Pancasila is not reduced to theoretical rhetoric, but lived through interactive, contextualized, and reflective educational experiences.

2. RESEARCH METHOD

This study focused on addressing the low level of understanding of Pancasila values among students at Sanggar Bimbingan Muhammadiyah Kepong, Malaysia. Pretest results showed that all students scored in the low category, ranging from 25 to 65, with an average score of 51.15. These findings highlighted the urgent need for innovative pedagogical interventions capable of conveying the philosophical essence of Pancasila in a meaningful and internalized way, especially in a non-formal overseas learning context where students are distanced from Indonesia's civic environment.

A quantitative research approach was employed, using an experimental one-group pretest–posttest design (Creswell, 2021). The aim was to evaluate the effectiveness of the Game Based Learning (GBL) model by comparing students' test scores before and after the intervention. Primary data were obtained directly from student performance through a written test instrument. Although the absence of a control group limits causal inference, this design is considered appropriate for classroom-based research that seeks to identify measurable improvements in learning outcomes within a specific setting.

The research population consisted of students enrolled at Sanggar Bimbingan Muhammadiyah Kepong, Malaysia, representing Indonesian learners in a non-formal overseas education environment. They were chosen as the research subjects because of their diverse backgrounds and varying exposure to civic education, making them a strategic group for interventions aimed at strengthening national identity through Pancasila values. Data collection relied exclusively on cognitive assessments, with a 20-item multiple-choice test developed to measure comprehension across the five principles of Pancasila.

The research procedure was carried out in three phases: (1) preparation, which included the development of the test instrument and a matching game based on Pancasila values; (2) implementation, consisting of a pretest, instructional sessions using the GBL model, and a posttest; and (3) conclusion, involving evaluation of learning outcomes. The GBL activities were designed to engage students with both visual and verbal cues linked to real-life applications of Pancasila, thereby promoting experiential and reflective learning.

For data analysis, the paired sample t-test was applied using SPSS 30.0 for Windows to assess the significance of the difference between pretest and posttest scores. Normality tests using Shapiro–Wilk confirmed that both pretest (sig. = 0.166) and posttest (sig. = 0.273) data were normally distributed. Results of the paired t-test revealed a significant increase in students' understanding, with a calculated t-value of -7.729 and $p = 0.000$ ($p < 0.05$), indicating that the GBL model had a statistically significant effect on improving comprehension of Pancasila values.

It should be noted, however, that this research has methodological limitations. The absence of a control group restricts the ability to fully attribute changes solely to the intervention, while the relatively small sample size and the specific non-



formal overseas context limit the generalizability of the findings. Nevertheless, the results provide valuable preliminary evidence of the potential effectiveness of GBL in civic and character education, particularly in transnational learning environments.

3. RESULT AND ANALYSIS

RESULT

Game Based Learning and Student Performance

The implementation of the Game Based Learning (GBL) model in PPKn instruction at Sanggar Bimbingan Muhammadiyah Kepong significantly improved students' comprehension of Pancasila values. Pretest scores ranged from 25 to 65 with an average of 51.15, placing all students in the low comprehension category. After the intervention, posttest scores increased markedly to a range of 60–95 with a mean of 81.15, showing an average improvement of 30 points. This result was statistically significant ($p < 0.05$), indicating that GBL effectively enhanced both cognitive understanding and value internalization.

Civic Education Engagement

In addition to numerical gains, qualitative observations revealed greater student engagement during the GBL sessions. Learners demonstrated enthusiasm, initiated discussions, and related civic concepts to their experiences as members of the Indonesian diaspora. Such behaviors indicated a shift from passive reception to active participation in civic learning. Importantly, posttest responses reflected higher-order thinking, as students were able to apply Pancasila principles to real-life scenarios, such as issues of social justice and tolerance. This suggests that GBL not only improved comprehension but also fostered reflective and contextualized learning.

Strengthening Understanding of Pancasila Values

Students also showed clearer distinctions across the five principles of Pancasila after the intervention. While pretest responses revealed confusion such as between national unity and social justice posttest performance and classroom discussions indicated greater confidence and accuracy in associating values with concrete behaviors. The matching game provided structured reinforcement, enabling students to connect abstract ideology with everyday life situations. This process helped them move beyond rote memorization toward meaningful understanding and civic reasoning.

ANALYSIS

Summary of Findings

Overall, the results demonstrate that GBL can transform the learning of Pancasila values from a passive and memorization-based process into an interactive, experiential, and reflective experience. Quantitative improvements in test scores were supported by qualitative indicators of deeper engagement, critical reflection, and contextual application of civic principles.

Comparison with Previous Studies

These findings are consistent with earlier research highlighting the effectiveness of GBL in enhancing motivation, critical thinking, and learning outcomes (Mao et al., 2022; Hwang et al., 2025). However, the novelty of this study lies in its application within a non-formal, transnational education setting—a context rarely examined in prior studies. Unlike school-based implementations, the current study shows that GBL can address challenges faced by Indonesian learners abroad, such as cultural detachment and limited access to formal civic education. This reinforces arguments from Erlande et al. (2025) and Shofyana et al. (2024) that game-based pedagogies are adaptable to diverse environments and particularly effective in multicultural learning contexts.

Significance of the Results

The success of the intervention demonstrates that Civics education, often perceived as rigid and theoretical, can be revitalized through innovative pedagogy. By combining cognitive and affective learning, GBL encouraged students to internalize Pancasila values while simultaneously strengthening their civic identity in diaspora settings. This dual impact underscores the importance of adopting student-centered and context-sensitive approaches in civic and character education.

Implications and Recommendations

Theoretically, this research supports the argument that value education must move beyond declarative teaching toward experiential and interactive learning. Practically, it suggests that GBL is a viable strategy for educators in Indonesian diaspora communities, as it provides an engaging means to reinforce national identity and civic responsibility. Policymakers and curriculum developers should consider incorporating game-based strategies in Civics instruction, while teachers require training in both game design and facilitation to maximize effectiveness. Future studies should expand the sample size, include control groups, and explore digital GBL applications to validate and extend these findings.

4. CONCLUSION

This study demonstrates a significant improvement in students' understanding of Pancasila values through the application of the Game Based Learning (GBL)



model. Learners who initially showed low levels of comprehension were able to internalize civic values more deeply and apply them accurately in context-based assessments. These findings confirm that GBL is not merely an alternative teaching method, but a pedagogical innovation capable of transforming civic and character education in non-formal, transnational learning environments. The increase in posttest scores, supported by enhanced student engagement and reflective learning, provides strong evidence of its effectiveness.

Theoretically, this research reinforces the view that civic and character education must adopt interactive, student-centered, and affective pedagogies to remain relevant in the 21st century. Practically, it offers educators of Indonesian diaspora communities an effective instructional model for strengthening national identity and civic awareness in contexts where conventional curricula may be less accessible. By showing how abstract values such as justice, democracy, and unity can be taught through experiential gameplay, the study contributes to expanding innovative approaches in curriculum design rooted in national ideology.

Nonetheless, this research has limitations, including its small sample size and single institutional context, which restrict the generalizability of findings. Future studies should extend the scope by employing larger and more diverse populations, as well as longitudinal designs to examine the sustainability of learning outcomes. In addition, further research is strongly recommended to explore digital-based and collaborative cross-cultural GBL models, which may provide broader applicability and relevance in globalized educational environments.

References

- Anggriawan, K. (2024). THE PRECEPTS OF INDONESIAN UNITY AS MATERIAL FOR REFLECTION ON IMPLEMENTING HUMAN RIGHTS VALUES. *Cakrawala: Journal of Citizenship Teaching and Learning*, 2(1), 21–29.
- Anggriawan, K., & Suhendar, A. (2024). Manifestation of the Galah Asin Game as a Cultural Heritage to Strengthen the Character of the Nation's Next Generation. *Pancasila and Civics Education Journal (PCEJ)*, 3(1), 19–24.
- Ardoin, N. M., Bowers, A. W., & Gaillard, E. (2023). A systematic mixed studies review of civic engagement outcomes in environmental education. *Environmental Education Research*, 29(1), 1–26.
- Brennan, A., & King, F. (2022). Teachers' experiences of transformative professional learning to narrow the values practice gap related to inclusive practice. *Cambridge Journal of Education*, 52(2), 175–193.
- Creswell, J. W. (2021). *A concise introduction to mixed methods research*. SAGE publications.
- Dalimunthe, M. A., Suhendar, A., Ritonga, A. R., Nasution, F. A., Nasution, L. N., & Batubara, P. E. O. (2024). Effectiveness of waste management site reduce,

- reuse, recycle program in improving ecological citizenship. *IOP Conference Series: Earth and Environmental Science*, 1352(1), 12040.
- Erlande, R., Lubis, B. S., Taufika, R., & Juri. (2025). Bibliometric analysis on global citizenship education in higher education. *Globalisation, Societies and Education*, 1–21.
- Faizan, H., & Abidin, A. Z. (2025). IMPROVING CIVICS EDUCATION/PPKn LEARNING ACHIEVEMENT THROUGH THE IMPLEMENTATION OF LIFE SKILLS APPROACH FOR CLASS X-2 STUDENTS OF SMA NEGERI 1 SUKAMULIA, EAST LOMBOK. *I-CONSIST: International Conference on Social and Islamic Studies*, 1(1), 9–24.
- Hwang, G.-J., Huang, H., & Chen, H.-Y. (2025). Promoting students' civic literacy and positive learning behaviors: A supportive feedback-based decision-making gaming approach. *Education and Information Technologies*, 30(1), 189–227.
- Lin, Y., Hsu, Y.-C., & Wu, X. (2024). From Theory to Practice: Role-Playing and Knowledge Building in Digital Learning Environments. *Journal of the Knowledge Economy*, 1–21.
- Mao, W., Cui, Y., Chiu, M. M., & Lei, H. (2022). Effects of game-based learning on students' critical thinking: A meta-analysis. *Journal of Educational Computing Research*, 59(8), 1682–1708.
- O'Cadiz, M. del P., Pescador, O., Schugurensky, D., & Torres, C. A. (2023). Teaching values, valuing experience: A pedagogical model from the Global South to address the ethical dimension of citizenship education. *Prospects*, 53(3), 341–353.
- Purwaningsih, E., & Kanukisya, B. (2023). Fostering Nationalism among University Students in Indonesia: A Communal Perspective. *Society*, 11(2), 529–542.
- Rustandi, A. M., Suhendar, A., & Dalimunthe, M. A. (2024). Polygamy in the Lens of Generation Z: A Communication Psychology Perspective. *Komunika*, 20(01), 18–25.
- Saragih, K. W., Suhendar, A., Damanik, J., Girsang, R. N., Saragi, S. R., & Ningrum, W. C. (2025). Juvenile Delinquency in the Perspective of Criminology in Indonesia: A Systematic Literature Review. *Journal Analytica Islamica*, 14(1), 208–218.
- Shaheen, A., Ali, S., & Fotaris, P. (2023). Assessing the efficacy of reflective game design: A design-based study in digital game-based learning. *Education Sciences*, 13(12), 1204.
- Shofyana, M., Santoso, Y. I., Aditama, M. G., Yulianti, E. H., & Wibisana, M. A. (2024). Bridging Cultures: Integrating Game-based Learning based on Local Wisdom in ELT. *Tell: Teaching of English Language and Literature Journal*, 12(2).
- Suhendar, A., & Halimi, M. (2023). The Role of Anti-Bullying Change Agents in Shaping Civic Dispositions to Tackle Bullying Behavior. *Proceeding International Conference on Religion, Science and Education*, 2, 903–913.
- Suhendar, A., Halimi, M., Taufika, R., Batubara, T., & Rawanoko, E. S. (2024). Fostering environmental responsibility among students: Collaborative



- strategies between village heads and school principals. *Education, Environmental and Society Research*, 1(1), 33–45.
- Suhendar, A., & Rambe, R. F. A. K. (2023). Group Discussion Effectiveness in Increasing Student Learning Interest in Pancasila and Citizenship Education Subjects. *Pancasila and Civics Education Journal (PCEJ)*, 2(2), 9–12.
- Suhendar, A., Ridayani, Azis, D., Mohd Yusoff, M. Z., & Rini Utami, A. (2024). Optimizing citizenship education for ecological awareness: Analysis of the effectiveness of the lihat sampah ambil (LISA) program in environmental conservation. *Journal of Professional Learning and Sustainable Education*, 1(1), 17–26. <https://doi.org/10.62568/jplse.v1i1.50>
- Suhendar, A., Syam, A. M., & Ritonga, A. R. (2023). Efektivitas Instagram Sebagai Ruang Motivasi Hijrah Mahasiswa IAIN Lhokseumawe. *Komunika*, 19(02), 12–20.
- Suhendar, A., Taufika, R., Rachmatsyah, R., Yusuf, R., Fajri, I., Mohd Yusoff, M. Z., & Adawiah, R. (2023). Eco-literacy and sustainable citizenship: The role of the school environment in shaping responsible environmental behavior. *Sekumpul: Journal of Multidisciplinary Education Sciences*, 1(1), 12–19. <https://doi.org/10.62568/jomes.v1i1.13>
- Suryani, N. A., Ruqoyyah, S., & Rohaeti, E. E. (2024). IMPLEMENTATION OF THE COOPERATIVE LEARNING MODEL TYPE MAKE A MATCH TO IMPROVE THE MATHEMATICAL CONCEPT UNDERSTANDING ABILITY IN MULTIPLICATION MATERIAL FOR 2nd STUDENTS. *Journal Of Educational Experts (JEE)*, 7(2), 82–95.
- Taufika, R., & Ginting, J. (2021). The Effect of Open-Ended Cooperative Learning on Students' Civic Education Learning Outcomes. *Holistic Science*, 1(1), 12–16.
- Taufika, R., Ritonga, A. R., & Ohorella, N. R. (2025). Consistency of Dalihan na Tolu vs. Same-Clan Marriage: The Intersection of Customary Law and Islamic Theological Doctrine. *Pharos Journal of Theology*, 106(2).
- Thornhill-Miller, B., Camarda, A., Mercier, M., Burkhardt, J.-M., Morisseau, T., Bourgeois-Bougrine, S., Vinchon, F., El Hayek, S., Augereau-Landais, M., & Mourey, F. (2023). Creativity, critical thinking, communication, and collaboration: assessment, certification, and promotion of 21st century skills for the future of work and education. *Journal of Intelligence*, 11(3), 54.
- Triff, Z. (2024). FORMATION OF MORAL VALUES IN THE CONTEMPORARY EDUCATIONAL CONTEXT. *Jurnalul Libertății de Conștiință*, 12(1), 853–861.
- Trinh, M. P., Chico, R. J., & Reed, R. M. (2024). How fun overcame fear: The gamification of a graduate-level statistics course. *Journal of Management Education*, 48(4), 735–776.
- Ukur, J., Suhendar, A., Sirait, I. R., Ababbil, T. N., & Anshari, N. N. (2025). STRENGTHENING DIGITAL-BASED CIVICS EDUCATION IN PREVENTING CYBERBULLYING AMONG VOCATIONAL HIGH SCHOOL STUDENTS AT SMK

- PRAMA ARTHA SERBELAWAN. *Journal Analytica Islamica*, 14(1), 488–498.
- Wiratama, G. P. (2024). APPLICATION OF THE TEAM GAMES TOURNAMENT (TGT) COOPERATIVE LEARNING MODEL IN IMPROVING CIVICS LEARNING RESULTS. *Cakrawala: Journal of Citizenship Teaching and Learning*, 2(1), 8–20.
- Zhang, Y., Yun, Y., An, R., Cui, J., Dai, H., & Shang, X. (2021). Educational data mining techniques for student performance prediction: method review and comparison analysis. *Frontiers in Psychology*, 12, 698490.