

Improving Learning Achievement in Pancasila Education Through Leker Gamification at the Junior High School Level

Yulia Nur Widiana^{1*}, Didik Sukriono², Wahyu Nur Rochmadi³, Siti Awaliyah⁴
^{1*,2,3,4} Magister Pendidikan Pancasila dan Kewarganegaraan Universitas Negeri Malang
[*yulia.nur.2507128@students.um.ac.id](mailto:yulia.nur.2507128@students.um.ac.id)

ARTICLE INFO

Article history

Received April 15, 2026
Revised Mei 27, 2026
Accepted Juni 1, 2026

Keywords: Learning achievement;
Learning, Leker's Gamification,
Junior high school

ABSTRACT

This study aims to improve students' learning achievement in Pancasila Education through the application of Leker's Gamification. Leker's is an acronym for Lembar Kerja Peserta Didik (student worksheets), and Leker's Gamification refers to a game-based, leveled student worksheet delivered through the Wordwall web platform. This research employed a Classroom Action Research (CAR) design, conducted in class VII-B of SMP Negeri 2 Ponorogo with 32 students as research subjects. The study was implemented in two cycles: Cycle I used conventional written student worksheets (LKPD), while Cycle II applied Leker's Gamification. Prior to the intervention, students' learning achievement was only 40% KKM completion. After Cycle I, achievement increased to 59%, and after Cycle II, it reached 93%, surpassing the 90% success indicator. These results demonstrate that Leker's Gamification is effective in significantly improving students' learning achievement in Pancasila Education. The findings have practical implications for teachers seeking to implement game-based, student-centered learning strategies that enhance motivation, engagement, and academic performance in the classroom.

1. INTRODUCTION

The implementation of the Merdeka Curriculum marks a paradigm shift in Indonesian education, emphasizing student-centered learning grounded in the Pancasila Student Profile (Arifin, 2012). Under this framework, learning is designed to be flexible, meaningful, and engaging, fostering not only academic achievement but also critical thinking, creativity, collaboration, and communication skills essential for the 21st century (Menengah, 2025) (Sakti, Rizki Oktiana, 2020). Teachers are expected to act as facilitators who create active, contextual learning experiences that motivate and challenge students (Suryadi, Ahmad, Effy Mulyasari, Derry Hendriawan, 2025). Central to this curriculum is the philosophy of (Dewantara, 2013), who viewed education as guiding students to reach their highest potential encompassing academic, psychological, and character dimensions (Mulyasa, 2022). Despite this progressive framework, Pancasila Education in practice continues to face significant challenges (Irawati, Deasy, Siti Masitoh, 2022). Observations in class VII-B of SMP Negeri 2 Ponorogo revealed that students showed low engagement and learning achievement. The primary contributing factor was the use of teacher-centered, conventional instructional methods namely lecture and question-and-answer techniques—that left students passive, bored, and unmotivated (R, Dinda Salsa Meika, 2021). Assessment tasks were carried out through one-directional, printed worksheets, resulting in late or incomplete submissions and limited student participation in the learning process (Huda, 2022) (Suardi, 2018). Previous studies on gamification in education have primarily focused on general subjects such as mathematics and natural sciences, with limited attention to Pancasila Education (PPKn) at the junior secondary level (Tondello, 2016). Furthermore, most existing studies relied on conventional gamification tools without integrating locally developed, leveled worksheet formats. This research addresses these gaps by developing Leker's Gamification a novel, locally adapted gamification approach specifically designed for Pancasila Education and empirically testing its effectiveness through Classroom Action Research (CAR) in a real classroom setting (Nah, Fiona Fui-Hoon, Qing Zeng, Venkata Rajasekhar

Telaprolu, 2014). Gamification has emerged as a promising solution to the problem of low student engagement in classroom learning (Zaric, Nadja, Rene Roepke, Vlatko Lukarov, 2021) (Sanjaya, 2024). Defined as the use of game design elements in non-game contexts, gamification aims to increase motivation and participation through mechanisms such as challenges, levels, points, and rewards (Jusuf, 2016) (Kapp, 2012). In educational settings, gamification has been shown to transform passive students into active participants, making learning more interactive, enjoyable, and meaningful (Andika, Ni Luh Putu, Ketut Agustini, 2025) (Maliasih, M., Hartono, H., & Nurani, 2017). (Wardana, Serly, 2019) demonstrated that gamification implementation in Indonesian classrooms increased student learning activity, motivation, and outcomes. Based on the above, this study aims to improve students' learning achievement in Pancasila Education through the application of Leker's Gamification (Lembar Kerja Peserta Didik berbasis Gamifikasi) in class VII-B of SMP Negeri 2 Ponorogo, utilizing a Classroom Action Research approach. This research contributes a novel, locally developed gamification model applicable for Pancasila Education in the context of the Merdeka Curriculum.

2. METHODS

The type of research used is Classroom Action Research (CAR). Classroom Action Research is a research activity conducted to solve problems in learning in order to improve the quality of instruction. It is called so because the CAR process begins with the stages of planning, action, observation, and reflection to solve problems and try new things in the improvement of learning quality (Susilo, Herawati, Husnul Chotimah, 2022). According to (Susilo, Herawati, Husnul Chotimah, 2022), this classroom action research is carried out collaboratively between the researcher and subject teachers to improve the quality of the learning process and outcomes. CAR focuses on continuously improving learning practices through concrete actions in the classroom. In its implementation, research is conducted in several cycles consisting of the planning, acting, observing, and reflecting stages. Through these stages, researchers can determine the effectiveness of the actions taken and make improvements in the subsequent cycle if problems are still found in the learning process. According to (Arikunto, 2006), CAR is a careful examination of learning activities in the form of deliberate actions that arise and occur in a classroom together. Meanwhile, Kemmis and McTaggart (2014) explain that CAR is carried out cyclically and reflectively to improve learning practices to become more effective. Thus, classroom action research is highly relevant for improving student participation, learning outcomes, and skills in the learning process. The classroom action research design in this study refers to the concept of Kemmis and McTaggart's CAR, which consists of Plan, Act and Observe, and Reflect, carried out repeatedly (Figure 1).



Figure 1. Kemmis and McTaggart CAR Design. Source: (Maliasih, M., Hartono, H., & Nurani, 2017)

The research was conducted over Cycle I and Cycle II. Cycle I consists of planning—which requires preparing a learning plan or teaching module, completing the tools and materials needed in

learning, and preparing observation sheets (Maliasih, M., Hartono, H., & Nurani, 2017). Implementation: the learning process uses the method selected in this study; in Cycle I, written student worksheets (LKPD) were used. Observation: observing student activities in the classroom. Reflection: conducted after the implementation of learning activities. Cycle II consists of the same components as Cycle I, differing only in the learning method selected. While Cycle I used written or manual student worksheets, Cycle II was implemented using Leker's Gamification, or game-based student worksheets. In Cycle II, actions were carried out based on the results of reflection from Cycle I. Learning improvements were focused on increasing student participation and engagement through the use of more interactive and enjoyable learning media. Therefore, in Cycle II, Leker's Gamification game-based student worksheets was used to create a more active, collaborative, and engaging learning atmosphere. The use of gamification in learning is expected to increase students' learning motivation so that learning outcomes and student participation can improve (Uno, 2023). The planning stage of Cycle II includes the preparation of an improved teaching module based on the reflection results of Cycle I, preparing gamification media, learning tools, and observation instruments (Maliasih, M., Hartono, H., & Nurani, 2017). In the implementation stage, teachers apply game-based learning by actively involving students in completing the challenges and activities contained in Leker's Gamification. The observation stage is then carried out to observe students' activity, enthusiasm, cooperation, and engagement during the learning process. The reflection stage is conducted to evaluate the results of the actions in Cycle II and to determine the improvements that occurred compared to the previous cycle (Sugiyono, 2022)

Based on the data collection and processing process used, this research employs a Classroom Action Research (CAR) design aimed at improving students' learning achievement in Pancasila Education through the application of Leker's Gamification. The study was conducted at SMP Negeri 2 Ponorogo with 32 students in class VII-B as research subjects, selected purposively based on the identified learning problems in that class. According to Arikunto (2018), the first stage in CAR is the identification of problems through direct observation in the classroom. Kemmis and McTaggart (2014) affirm that CAR is conducted in ongoing cycles to improve learning practices based on the results of reflection from previous actions. The research instruments used in this study consisted of: (1) a learning achievement test (pre-test and post-test), comprising 20 multiple-choice items covering the material on cooperation and mutual assistance, which was validated by expert judgment before use; (2) a student observation sheet, used to assess student activity and engagement during each cycle, consisting of 10 indicators scored on a 1–4 scale. The minimum completeness criterion (KKM) was set at 75, with a class success indicator of 90% KKM completion. Data were analyzed descriptively by comparing the percentage of students achieving KKM across the pre-cycle, Cycle I, and Cycle II stages.

3. RESULTS AND DISCUSSION

RESULTS

This classroom action research was conducted in class VII-B of UPT SMP Negeri 2 Ponorogo, which is one of the leading public schools in the city of Ponorogo. In this study, the researcher selected class VII-B as the research subject. Based on the results of the pre-cycle observation conducted, it was found that when learning was carried out using only the lecture method and PowerPoint media, students appeared bored and uninterested. This caused the level of student interest and learning outcomes to be relatively low, as evidenced by students who were drowsy and busy chatting with their seatmates, thus paying little attention to the material presented by the teacher (Sudjana, 2016). In addition, in assignment activities, some students were late in submitting and some even did not complete their assignments. Therefore, a strategy is needed to improve students'

learning achievement through creative and innovative learning methods. The implementation of Cycle I was conducted by discussing the material on cooperation and mutual assistance, beginning with the planning, action, observation, and reflection stages. The planning stage was carried out by preparing learning tools and assessment sheets. Next, in the action or learning implementation stage, assignments were given in the form of student worksheets distributed to each group manually or in written form. These assignments included observing images, answering several questions, and completing a word search activity.

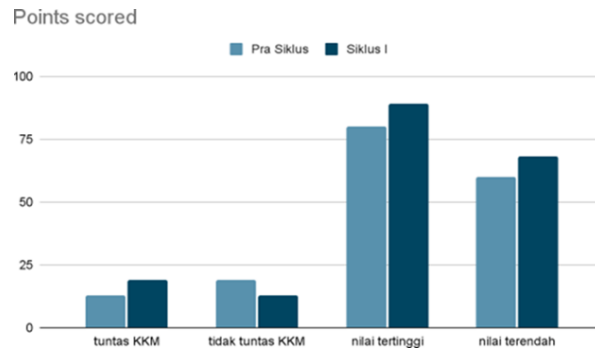


Figure 2. Diagram of Student Learning Achievement Improvement from Pre-Cycle to Cycle I

The learning achievement test results in Cycle I found a difference showing that the implementation of learning had an effect on children's learning achievement. The remaining problem to be solved was that the learning achievement attained in Cycle I had not yet met the expected learning outcome attainment. Based on the diagram above, it can be seen that there was an improvement in learning outcomes among students of class VII-B at UPT SMP Negeri 2 Ponorogo from the pre-cycle to Cycle I. In the pre-cycle stage, students' average learning outcome was 40% KKM (minimum completeness criteria) completion, which then rose to 59% KKM completion in Cycle I. This means there was an increase between the pre-cycle stage and Cycle I in terms of student learning outcomes. Although there was an improvement, it had not yet met the expected minimum of 90%. Therefore, further improvement efforts were still needed, and the research had to proceed to the next cycle. In the Cycle II stage, learning activities were carried out with reference to the lesson plan that had been prepared, taking into account and considering various inputs obtained during the implementation of the first cycle, and making various modifications. Cycle II learning activities were conducted in an assessment session held at the end of the lesson.

Cycle II

In the implementation of Cycle II, learning was conducted using Leker's Gamification. In Cycle II, the learning implementation utilized advances in technology. Assignments by the teacher were carried out through a game-based website called Wordwall, which students could freely access. The data obtained by the researcher from the learning achievement test results in Cycle II showed that students' ability to follow the lesson was good. This can be seen in the following diagram.

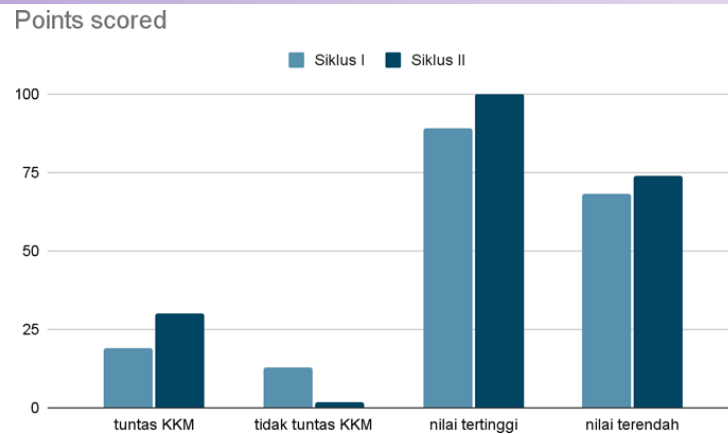


Figure 3. Diagram of Student Learning Achievement Improvement from Cycle I to Cycle II

Based on the diagram, it can be seen that the number of students who achieved KKM completion increased from Cycle I as many as 93% while those who did not complete numbered 6%. These results indicate that in Cycle II, 93% of students' learning outcomes were complete and had exceeded the research success indicator of 90%. Therefore, it can be stated that the application of Leker's Gamification successfully improved students' learning outcomes and achievement. Based on the observation results of Cycle II, it was found that learning proceeded in a more varied and engaging manner, so students were enthusiastic in participating in the classroom learning. This led to an increase in both student motivation and learning achievement.

Table 1. Comparison between Pre-Cycle and Cycle II

Deskripsi	Pra Siklus	Siklus I	Siklus II
KKM Completion	13	19	30
Not KKM Complete	19	13	2
Highest Score	80	89	100
Lowest Score	60	68	74

Based on the table, it can be seen that the use of innovative learning methods will affect students' learning achievement. The efforts made to improve students' learning achievement were successfully realized, as evidenced by Table 1, which presents comparative data on students' learning achievement between the pre-cycle, Cycle I, and Cycle II.

DISCUSSION

This classroom action research demonstrates that Leker's Gamification significantly improved the learning achievement of class VII-B students in Pancasila Education. The percentage of students achieving KKM completion increased from 40% (pre-cycle) to 59% (Cycle I) and ultimately to 93% (Cycle II), surpassing the 90% success indicator. This progression reflects the effectiveness of transitioning from conventional, teacher-centered instruction to interactive, game-based learning. The improvement observed between Cycle I and Cycle II can be explained by several key factors. First, the shift from printed worksheets (LKPD) to digital game-based worksheets via the Wordwall platform fundamentally changed the learning atmosphere (Rusman, 2022). The four-level challenge structure of Leker's Gamification, with time limits and group-based rules, transformed passive recipients into active participants. This is consistent with (Wardana, Serly, 2019), who found that gamification implementation in Indonesian classrooms significantly increased student learning activity and motivation. Second, the intrinsic motivational elements embedded in Leker's

Gamification—such as challenges, levels, immediate feedback, and a sense of achievement upon completing each stage—are key drivers of engagement. (Jusuf, 2016) explains that gamification increases students' motivation in the learning process by creating an enjoyable and competitive atmosphere. (Marisa, F., Akhriza, T. M., Maukar, A. L., Wardhani, A. R., Iriananda, S. W., & Andarwati, 2020) further affirm that gamification transforms existing learning activities into game-like experiences that heighten student interest. In this study, observation results from Cycle II confirmed that students were noticeably more enthusiastic, collaborative, and focused compared to Cycle I (Makki, Ismail, 2019). Third, the technology-assisted delivery through the Wordwall platform made the learning experience more accessible and visually stimulating. Students could independently access the materials and receive instant feedback, which supported self-directed learning in line with the Merdeka Curriculum principles (Nasional, 2010; Mulyasa, 2022) It should also be noted that this study has several limitations. The sample was limited to 32 students in a single class at one school, which constrains the generalizability of the findings. The research was conducted over only two cycles, and results may differ with more cycles or a broader sample. Future research should explore the application of Leker's Gamification across different classes, schools, and subjects to validate these findings more broadly.

4. CONCLUSION

This classroom action research confirms that the application of Leker's Gamification (Lembar Kerja Peserta Didik berbasis Gamifikasi) effectively improved the learning achievement of class VII-B students in Pancasila Education at SMP Negeri 2 Ponorogo. Student KKM completion increased from 40% in the pre-cycle, to 59% in Cycle I, and reached 93% in Cycle II, exceeding the 90% success indicator. The multi-level, game-based structure of Leker's Gamification—delivered through the Wordwall platform—successfully transformed passive students into active, motivated learners. This study contributes a novel, locally developed gamification model (Leker's Gamification) that is specifically adapted to the context of Pancasila Education and aligned with the principles of the Merdeka Curriculum. Unlike generic gamification tools, Leker's integrates leveled student worksheets with digital game mechanics, providing a practical and replicable model for Indonesian teachers. The practical implications of this research are significant: teachers in junior secondary schools can adopt Leker's Gamification as a student-centered assessment and learning strategy that improves both motivation and academic achievement. School leaders and curriculum designers should consider incorporating gamification training into professional development programs for teachers. For future research, it is recommended to: (1) expand the implementation across multiple classes and schools to strengthen generalizability; (2) examine the long-term retention effects of gamification-based learning; and (3) develop Leker's Gamification for other subjects within the Merdeka Curriculum framework.

5. REFERENCES

- Andika, Ni Luh Putu, Ketut Agustini, I. G. W. S. (2025). Studi Literatur Review: Peran Media Game Based Learning terhadap Pembelajaran. *Didaktika: Jurnal Kependidikan*, 14(1), 799–812. <https://doi.org/https://doi.org/10.58230/27454312.1645>
- Arifin, Z. (2012). *Evaluasi Pembelajaran* (Cet. ke-2). Remaja Rosdakarya.
- Arikunto, S. (2006). *Prosedur Penelitian Suatu Pendekatan Praktik*. Rineka Cipta.
- Dewantara, K. H. (2013). *Pemikiran Pendidikan Ki Hajar Dewantara*. Majelis Luhur Persatuan Taman Siswa.
- Huda, M. (2022). *Model-model Pengajaran dan Pembelajaran*. Pustaka Pelajar.
- Irawati, Deasy, Siti Masitoh, M. N. (2022). Filsafat Pendidikan Ki Hajar Dewantara Sebagai Landasan Pendidikan Vokasi di Era Kurikulum Merdeka. *Jupe: Jurnal Pendidikan Mandala*,

- 7(4). <https://doi.org/http://dx.doi.org/10.58258/jupe.v7i4.4493>
- Jusuf, H. (2016). Penggunaan Gamifikasi dalam Proses Pembelajaran. *Jurnal Ticom*, 5(1), 1–6. <https://www.neliti.com/publications/92772/penggunaan-gamifikasi-dalam-proses-pembelajaran#cite>
- Kapp, K. M. (2012). *The Gamification of Learning and Instruction* (E. by. R. T. N. J. Wiley., Ed.).
- Makki, Ismail, & M. A. (2019). *Konsep Dasar Belajar dan Pembelajaran*. Duta Media Publishing.
- Maliasih, M., Hartono, H., & Nurani, P. (2017). Upaya Meningkatkan Motivasi Belajar dan Hasil Belajar Kognitif Melalui Metode Teams Games Tournaments dengan Strategi Peta Konsep pada Peserta didik SMA. *Jurnal Profesi Keguruan*, 3(2), 222–226. <https://doi.org/https://doi.org/10.7290/jpk.v3i2.12278>.
- Marisa, F., Akhriza, T. M., Maukar, A. L., Wardhani, A. R., Iriananda, S. W., & Andarwati, M. (2020). Gamifikasi (Gamification) Konsep dan Penerapan. *JOINTECS (Journal of Information Technology and Computer Science)*, 5(3), 219–228. <https://doi.org/https://doi.org/10.31328/jointecs.v5i3.1490>
- Menengah, K. P. D. dan. (2025). *Implementasi Kurikulum Merdeka dan Penguatan Profil Pelajar Pancasila dalam Pembelajaran Abad 21*. Kemendikdasmen.
- Mulyasa. (2022). *Manajemen Pendidikan Karakter*. Bumi Aksara.
- Nah, Fiona Fui-Hoon, Qing Zeng, Venkata Rajasekhar Telaprolu, A. P. A. & B. E. (2014). Gamification in Education: A Review of Literature. *HCI in Business*, 8527, 401–409. https://doi.org/https://doi.org/10.1007/978-3-319-07293-7_39
- Nasional, K. P. (2010). *Peraturan Menteri Pendidikan Nasional Republik Indonesia Nomor 58 Tahun 2009 tentang Standar Pendidikan Anak Usia Dini (PAUD)*. Direktorat Jendral Menejemen Pendidikan Dasar dan Menengah Direktorat Pembinaan TK dan SD.
- R, Dinda Salsa Meika, & E. D. P. (2021). Peran Guru dalam Membentuk Karakter Peserta didik Peduli terhadap Lingkungan pada Sekolah Adiwiyata di SD. *Mimbar Ilmu*, 26(3), 346–354. <https://doi.org/https://doi.org/10.23887/mi.v26i3.39617>
- Rusman. (2022). *Pembelajaran Berbasis Teknologi Informasi dan Komunikasi*. Rajawali Pers.
- Sakti, Rizki Oktiana, S. H. (2020). Meningkatkan Prestasi Belajar Pendidikan Pancasila dengan Menggunakan Model Brain Based Learning. *Jurnal Kewarganegaraan*, 4(1), 38–44. <https://doi.org/https://doi.org/10.31316/jk.v4i2.1171>
- Sanjaya, W. (2024). *Perencanaan dan Desain Sistem Pembelajaran*. Kencana.
- Suardi, M. (2018). *Belajar dan Pembelajaran*. Deepublish.
- Sudjana, N. (2016). *Dasar-dasar Proses Belajar Mengajar*.
- Sugiyono. (2022). *Metode Penelitian Pendidikan*. Alfabeta.
- Suryadi, Ahmad, Effy Mulyasari, Derry Hendriawan, M. U. (2025). Penerapan Kurikulum Merdeka pada Sekolah Dasar: Tinjauan Literatur Sistematis. *Kalam Cendekia: Jurnal Ilmiah Kependidikan*, 13(2), 994–1006. <https://doi.org/https://doi.org/10.20961/jkc.v13i2.97777>
- Susilo, Herawati, Husnul Chotimah, Y. D. S. (2022). *Penelitian Tindakan Kelas*. Media Nusa Creative.
- Tondello, G. F. (2016). An Introduction to Gamification in Human-Computer Interaction. *XRDS Crossroads the ACM Magazine for Students*, 23(1), 15–17. <https://doi.org/https://doi.org/10.1145/2983457>
- Uno, H. B. (2023). *Teori Motivasi dan Pengukurannya: Analisis di Bidang Pendidikan*. Bumi Aksara.
- Wardana, Serly, & E. M. S. (2019). Implementasi Gamifikasi Berbantu Media Kahoot untuk Meningkatkan Aktivitas Belajar, Motivasi Belajar, dan Hasil Belajar Jurnal Penyesuaian Peserta didik Kelas X Akuntansi 3 di SMK Koperasi Yogyakarta Tahun Ajaran 2018/2019. *Jurnal Pendidikan Akuntansi Indonesia*, 17(2). <https://doi.org/https://doi.org/10.21831/jpai.v17i2.28693>
- Zaric, Nadja, Rene Roepke, Vlatko Lukarov, U. S. (2021). Gamified Learning Theory: The Moderating Role of Learners' Learning Tendencies. *International Journal of Serious Games*, 8(3). <https://doi.org/http://dx.doi.org/10.17083/ijsg.v8i3.438>