



Yojo Game-Based Learning: A Kaili Local Wisdom Approach to Strengthening Pancasila Values

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Abstract: In the digital age, the process of internalizing national values faces various challenges due to the dominance of conventional and contextually deficient learning approaches. This study aims to examine the effectiveness of the Yojo digital game-based learning model, which integrates Kaili local wisdom, in strengthening students' understanding of Pancasila values. This study employs a quantitative approach using a quasi-experimental one-group pre-test-post-test design involving 20 students at MAN 1 Kota Palu. Data were collected using cognitive tests and perception questionnaires and analyzed using descriptive statistics, N-Gain Scores, and paired-samples t-tests. The results indicate an improvement in student learning outcomes, with the average score increasing from pre-test to post-test and a moderate N-Gain score. Students' perceptions of the Yojo game's use also fell into the high-to-very-high categories, particularly regarding engagement, motivation, and ease of understanding the material. These findings indicate that integrating local wisdom into game-based learning effectively enhances students' understanding and fosters meaningful, culturally contextual learning experiences. This study contributes to the development of a culturally grounded digital learning model that is responsive to contemporary educational needs.

Keywords: civic education; culturally responsive teaching; digital game-based learning; local wisdom; pancasila values

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INTRODUCTION

Education plays a fundamental and strategic role in shaping individual character and instilling values that underpin national identity and social cohesion (Cai et al., 2026; Gong et al., 2026). In the Indonesian context, this role is not only normative but also constitutional, underscoring the importance of education in internalizing the values of Pancasila (Kuncorowati et al., 2025; Sumarsono et al., 2025; Suwandi et al., 2025). Pancasila, as the state ideology, embodies philosophical values that guide social, political, and cultural life (Pujiastuti et al., 2025; Puspitasari et al., 2025). However, in today's digital era, the process of internalizing these values faces increasingly complex challenges, particularly among Generation Z, who are more familiar with digital technology than with conventional, text-based, and abstract learning approaches (Selly & Setiawan, 2025). The rapid development of information and communication technology has brought significant transformations to educational practices, including the emergence of various technology-based learning innovations (Patras et al., 2025). Digital learning has emerged as a promising alternative for enhancing educational quality, particularly in the teaching of Pancasila values (Handayani, 2026). The immersive learning approach, which emphasizes enjoyable, interactive learning experiences, has been shown to boost student motivation and engagement (Denham et al., 2025; Tao et al., 2026). One relevant strategy is the use of digital educational games, which can integrate elements of interactivity, engagement, and contextualization into the learning process (Aguilera-Ramirez, 2026; Subawa et al., 2026).

Several previous studies indicate that game-based learning can improve knowledge retention and present abstract concepts in a more concrete, easily understandable manner (Ruyadi et al., 2026; Wardani et al., 2025). Additionally, studies have shown that using educational games can enhance student engagement and motivation by providing interactive, experience-based learning materials (Komalasari et al., 2025; Seran et al., 2026). In the context of values education, game-based learning has proven effective in helping students understand normative and abstract concepts more readily (Hasan & Monita, 2026; Siska et al., 2026; Syafi'i et al., 2026; Tajuddin et al., 2026). Nevertheless, the digital learning media currently being developed still tend to be general in nature and do not yet fully accommodate students' local cultural context, particularly that of Sulawesi. Most digital learning platforms are designed with a generic approach, thus failing to adequately consider learners' social and cultural backgrounds as an essential component of the knowledge-construction process. Several studies, including the development of applications and learning media, indicate increased

student engagement in digitally based learning (Handayani, 2026; Patras et al., 2025; Ruyadi et al., 2026). However, this increase is generally still limited to cognitive aspects and technical interactivity, without being balanced by the strengthening of students' affective dimensions and cultural identity.

This gap is crucial to address because values education, such as Pancasila values, demands not only conceptual understanding but also emotional and contextual internalization (Balakrishnan, 2026; Lantajo, 2026). Learning media that are disconnected from students' cultural experiences can create a gap between the material being studied and the realities of daily life, resulting in values that are often normative and lack meaning (McClendon et al., 2025; Tampubolon et al., 2025). In this context, the absence of integrating local wisdom into digital media results in missed opportunities to foster emotional connection, a sense of belonging, and pride in cultural identity, which form the foundation for strengthening national character. The dominance of a universal approach in the development of digital learning media also results in suboptimal contextual learning processes (Vasudevan et al., 2025). However, various studies in education indicate that learning relevant to students' cultural contexts tends to be more effective in enhancing motivation, engagement, and knowledge retention (Engartner & Schedelik, 2025). When national values such as Pancasila are not linked to tangible local cultural practices, the process of internalizing these values becomes less profound and risks remaining confined to the cognitive level (Younas & Imran, 2025).

This situation highlights a significant gap in the scientific literature, particularly the limited number of studies that empirically test the effectiveness of integrating local wisdom into game-based digital learning media in supporting the internalization of Pancasila values. Most previous studies have focused primarily on technological aspects and general improvements in learning outcomes, without exploring how cultural dimensions can play a key role in strengthening student engagement and identity formation. Therefore, there is a need for digital learning models that not only emphasize interactivity but also systematically and contextually integrate local cultural values. Local wisdom is a source of values that reflects a community's life experiences, traditions, and cultural identity (Ahmadi et al., 2026; Pardosi et al., 2026).

In the context of multicultural Indonesia, local wisdom holds great potential for integration into learning to enhance its relevance and meaning for students (Hariani & Irmayani, 2026; Maemunah et al., 2026). Kaili culture, for example, embodies philosophical values aligned with Pancasila's principles, such as solidarity, social harmony, and collective responsibility (Jamaludin et al., 2025). Integrating these values into digital learning media can create a learning environment that not only supports cognitive understanding but also strengthens students' affective engagement and identity formation. The Culturally Responsive Teaching (CRT) approach provides a strong theoretical foundation for this study by integrating students' cultural backgrounds into the learning process (Hilliard et al., 2025; Siliunas et al., 2024). This approach emphasizes that learning is more effective when connected to students' cultural experiences and contexts, thereby enhancing motivation, engagement, and meaningful learning (Belford, 2024; Ialuna et al., 2024). In the context of digital learning, this approach can be implemented by developing interactive media that incorporate local cultural narratives and values (Kehl et al., 2024; Tanase & Kayaalp, 2024). However, the implementation of this approach in game-based digital learning media, particularly in Pancasila education, has not yet been extensively tested empirically.

Despite the growing body of research on digital game-based learning and culturally responsive teaching, most previous studies have primarily focused on technological aspects and general improvements in learning outcomes, with limited attention to integrating local cultural values as a core component of instructional design. In addition, empirical studies that specifically examine the effectiveness of integrating local wisdom into game-based digital learning for Pancasila education remain limited. This study differs from previous research by combining three key elements: (1) the integration of Kaili local wisdom as a cultural foundation, (2) the implementation of the Yojo digital game-based learning model, and (3) empirical testing using a quasi-experimental design to evaluate its impact on students' understanding of Pancasila values.

Based on this gap, this study presents the use of the digital educational game "Yojo" (in the Kaili language, 'Yojo' means 'boy'), which was developed in prior research to integrate Kaili local wisdom into a game-based learning environment. Unlike conventional digital learning media, Yojo is designed not only to enhance cognitive understanding of Pancasila values but also to foster emotional attachment to students' cultural identity (Jamaludin et al., 2025). By transforming the abstract concepts of Pancasila into interactive, contextual learning experiences, Yojo is expected to enhance learning effectiveness and strengthen student engagement. Based on the above explanation, this study aims to test the effectiveness of the Yojo digital learning game in reinforcing Pancasila values among students at MAN 1 Kota Palu. Specifically, this study aims to: (1) analyze the relevance between the values of Pancasila and the local wisdom of the Kaili people, (2) examine students' perceptions of the Yojo game in enhancing understanding and support for the internalization of Pancasila values, and (3) assess the effectiveness of the Yojo game in supporting the internalization of Pancasila values. This study contributes to theory by extending the application of culturally responsive teaching in digital game-based learning, particularly in the context of values education. In practice, this study offers an alternative model for Pancasila education by integrating local cultural values into interactive digital learning media, thereby making learning more contextual and meaningful.

METHODS

This study employs a quantitative, quasi-experimental design. Specifically, the design used is a One-Group Pre-test–Post-test Design to assess the effectiveness of the Yojo digital learning game in improving students' understanding of and supporting the process of internalization of Pancasila values. In this design, participants are given a pre-test before the treatment, then receive the treatment, and finally take a post-test to measure changes in learning outcomes after the intervention (Creswell & Creswell, 2018). This design is widely used in educational research to evaluate the impact of instructional interventions in real classroom settings. In this design, participants are given a pre-test before the treatment, then receive the treatment, and finally take a post-test to measure changes in learning outcomes after the intervention. The comparison between pre-test and post-test scores provides empirical evidence of the effectiveness of the implemented learning model (Creswell & Creswell, 2018). However, this design lacks a control group; therefore, causal inference should be drawn with caution.

The research subjects consisted of 20 students from MAN 1 Kota Palu. Sample selection was conducted using purposive sampling, with the criteria that respondents had access to digital devices and could operate the Yojo educational game. This selection aimed to ensure that all respondents could optimally participate in the technology-based learning intervention. Although the sample size was relatively small, it was considered adequate for preliminary experimental analysis within a controlled learning context. The Yojo digital educational game was implemented using Android-based mobile devices. This Yojo game was designed in a previous study as an interactive learning medium that integrates Kaili local wisdom into Pancasila learning materials (Jamaludin et al., 2025). The interface design and game flow of Yojo used in this study are presented in Figure 1.



Figure 1. Interface of the Yojo Game Based on Kaili Local Wisdom

Figure 1 shows the interface of the Yojo game, which is designed as an interactive game path featuring various points representing the values of Pancasila and Kaili local wisdom. Each section of the game includes visual elements and cultural symbols to help students understand concepts in context and in an engaging way. The design also emphasizes user interaction through structured tasks that guide students in systematically exploring value-based content. Each participant accesses the Yojo Game independently during the learning session under teacher supervision. The treatment session lasts approximately 45 minutes, allowing students sufficient time to explore the game's features, complete tasks, and interact with the learning materials presented. This duration is considered adequate to facilitate both cognitive engagement and initial value internalization during the learning process.

Data collection was conducted using two primary instruments: (1) a cognitive test and (2) a perception questionnaire. The cognitive test consists of 15 multiple-choice questions designed to measure students' understanding of the values of Pancasila and their connection to local wisdom. Meanwhile, the perception questionnaire uses a Likert scale (1–5) comprising 12 statements covering three main aspects: media effectiveness, student engagement, and learning motivation. Before use, the research instrument was tested for validity and reliability. Validity was assessed using Pearson's Product-Moment correlation, while reliability was assessed using Cronbach's Alpha. The results indicated that all items in the instrument were valid and reliable, with a Cronbach's Alpha value of 0.82, indicating good internal consistency (Gestsdóttir et al., 2018).

The research procedure was conducted in three stages. In the first stage, students took a pre-test to assess their initial understanding of Pancasila values and local wisdom. In the second stage, students participated in learning activities using the Yojo game as the intervention. In the third stage, students took a post-test and completed a perception questionnaire to evaluate their learning experience following the intervention. Data analysis was conducted using descriptive and inferential statistical techniques. Descriptive

statistics were used to summarize the distribution of questionnaire data using frequencies and percentages. To measure learning effectiveness, an N-Gain Score was calculated to assess improvement in learning outcomes from pre-test to post-test. Additionally, a paired-sample t-test was used to determine the significance of the difference in learning outcomes before and after the intervention, with a significance level of $p < 0.05$ (Creswell & Creswell, 2018). This study has several methodological limitations. The absence of a control group may threaten internal validity, and the relatively small sample size limits the generalizability of the findings. In addition, the short duration of the intervention means that the results primarily reflect short-term learning outcomes rather than deep value internalization.

RESULT AND DISCUSSION

The results of this study are organized into three main aspects: (1) the relationship between Pancasila values and Kaili local wisdom, (2) students' perceptions of the Yojo digital game-based learning model, and (3) the effectiveness of the Yojo game in improving students' understanding of Pancasila values. The analysis results indicate that the values of Pancasila are strongly connected to the local wisdom of the Kaili community. This connection is evident in the alignment between each principle of Pancasila and the values embodied in Kaili's local cultural expressions. This relationship is presented systematically in Table 1.

Table 1. The Relationship Between the Values of Pancasila and Kaili Local Wisdom

Principles of Pancasila	Kaili Local Wisdom Expressions	Meaning
Belief in the One and Only God	<i>Nosarara Nosabatutu</i>	Reflects the value of unity and brotherhood, emphasizing social cohesion, mutual respect, and collective harmony within the community.
Just and Civilized Humanity	<i>Oge-oge codes</i>	Indicates that even small traditions carry broad and meaningful values related to human dignity and self-respect.
The Unity of Indonesia	<i>Bela bulava ri ngata ntona, belo salaka ri ngata mboto</i>	Implies that one's homeland remains more valuable than foreign lands, emphasizing love for the nation and the importance of maintaining national identity.
Democracy Led by the Wisdom of Deliberation and Representation	<i>Da ratimba, da rausulu</i>	Emphasizes careful consideration and thorough deliberation in decision-making processes to ensure fairness and collective agreement.
Social Justice for All Indonesian People	<i>Im makaa makoto, im mabalu</i>	Suggests that behavior should be balanced and appropriate according to one's roles and responsibilities, promoting justice and social harmony.

Table 1 shows how each principle of Pancasila corresponds to a meaning in Kaili local wisdom. This integration serves as the conceptual foundation for developing the Yojo educational game, enabling the abstract concepts of Pancasila to be translated into more contextually relevant learning materials for students' lives. Based on Table 1, it is evident that each principle of Pancasila is closely linked to the values embodied in the local wisdom of the Kaili people. This connection demonstrates that the values of Pancasila are not merely normative and abstract but also manifest in the community's cultural practices. It also indicates that local wisdom can serve as a relevant medium for translating national values into contexts more easily understood by students. This integration of national values and local culture serves as a crucial foundation for developing contextual learning materials, enabling students to understand the values of Pancasila in a more meaningful and relevant way to their daily lives. Consequently, such an approach supports not only cognitive understanding but also the strengthening of students' cultural awareness and the internalization of values.

Based on the perception survey results, a positive trend in evaluations of Yojo game use was observed across all measured indicators. Regarding the understanding of local wisdom and appreciation of regional culture, each indicator showed that all respondents rated the items on a scale of 3 to 5, with no negative ratings (scales 1 and 2). This indicates that integrating local wisdom into digital learning media not only enhances students' understanding but also deepens their appreciation of local cultural values. In terms of effectiveness compared to conventional learning methods, more than 80% of respondents gave high ratings (4 and 5), indicating that students tend to prefer game-based learning. Additionally, regarding the ease of understanding the material, 50% of respondents rated it as "easy" (scale 4) and 30% as "fairly easy" (scale 3). These findings suggest that the Yojo game effectively simplifies the abstract concepts of Pancasila into more concrete, easily understandable forms for students. Furthermore, the survey results indicate that using the Yojo game enhances students' interest and engagement in learning. This is reflected in the predominance of positive ratings across all indicators, suggesting that game-based learning media provide a more engaging and interactive learning

experience compared to conventional methods. The complete results of students' perceptions of the Yojo game are presented in [Table 2](#).

Table 2. Students' Perceptions of the Use of the Yojo Game

Aspect	Mean	Std. Dev	Min	Max	Category
Understanding of local wisdom	3.60	0.50	3	5	High
Learning Effectiveness	4.10	0.60	3	5	Very High
Ease of Understanding the Material	3.90	0.55	3	5	High
Interest and Engagement in Learning	4.05	0.58	3	5	Very High
Appreciation of Local Culture	3.70	0.52	3	5	High

Based on [Table 2](#), the average student perception scores fall into the high-to-very-high categories across all measured aspects. This indicates that the Yojo game received a very positive response from students. Furthermore, the absence of negative responses suggests that this learning medium was well-received by all respondents. The combination of high mean scores and a positive rating distribution indicates that the Yojo game contributes to improvements in students' understanding, engagement, and motivation to learn. To provide a more detailed picture of the distribution of student perceptions for each indicator, the assessment results are presented visually in [Figure 2](#).

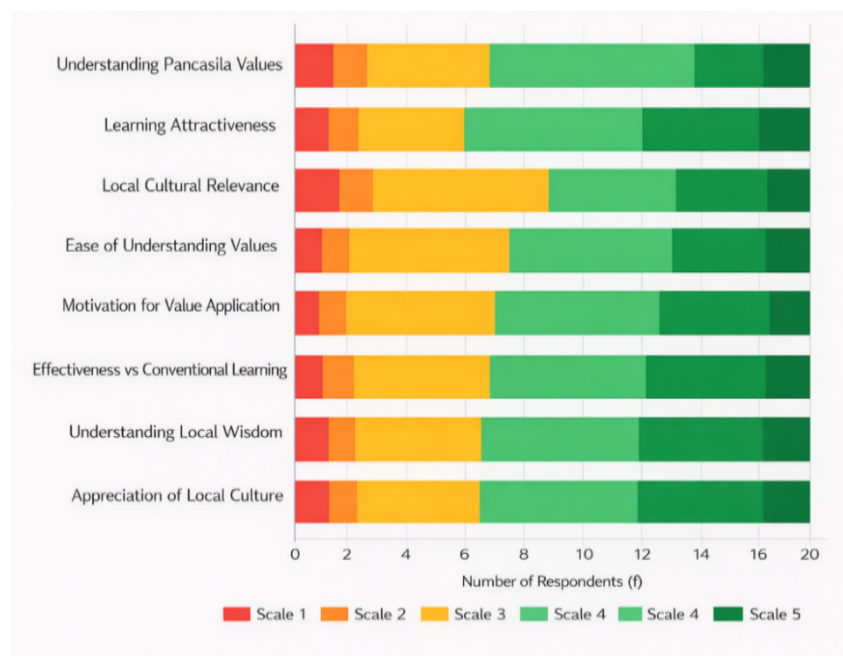


Figure 2. Distribution of Students' Perceptions Regarding the Use of the Yojo Game Across Each Indicator

Based on [Figure 2](#), the majority of respondents rated the game at levels 4 and 5 across nearly all indicators, including understanding of Pancasila values, relevance to local culture, learning effectiveness, and learning motivation. This indicates that using the Yojo game provides a positive and engaging learning experience for students. Furthermore, the data distribution, which is dominated by high ratings, also indicates that game-based learning media can enhance students' active engagement in the learning process. The scarcity of low ratings further reinforces the view that the Yojo game is well-received as an innovation in Pancasila education. The distribution of ratings, dominated by scales 4 and 5 in [Figure 1](#), aligns with the high average scores across all aspects shown in [Table 2](#), demonstrating consistency between the descriptive results and the distribution of student responses. The effectiveness of using the Yojo game in learning was analyzed by comparing students' pre-test and post-test results, supported by N-Gain Score analysis and statistical tests. Before hypothesis testing, a normality test was conducted to ensure the data met the assumptions of parametric testing. The results of the normality test are presented in [Table 3](#).

Table 3. Results of the Data Normality Test

Variable	Statistic	df	Sig. (p-value)	Notes
Pre-test	0.958	20	0.412	Normal
Post-test	0.965	20	0.527	Normal

Based on Table 3, the normality test results indicate that the p-values for the pre-test and post-test data are greater than 0.05 ($p > 0.05$), so the data are normally distributed. Thus, the assumption underlying the use of parametric tests has been met. Furthermore, a comparison of the pre-test and post-test scores is presented in Table 4

Table 4. Comparison of Pre-test and Post-test Results

Variable	Pre-test (Mean)	Post-test (Mean)	N-Gain	p-value
Understanding of Pancasila Values	65.20	82.75	0.50 (Moderate)	0.001

Based on Table 4, the post-test mean score (82.75) is higher than the pre-test mean score (65.20), indicating an improvement in students' understanding after using the Yojo game. The N-Gain value of 0.50 falls into the moderate category, suggesting that the improvement in learning outcomes is meaningful. Additionally, the results of the paired-sample t-test show a p-value of 0.001 ($p < 0.05$), indicating a statistically significant difference between the pre-test and post-test results. These findings provide empirical evidence that using the Yojo game as a learning medium positively affects students' learning outcomes. Furthermore, this improvement reflects the effectiveness of integrating interactive digital media with local cultural content in enhancing both engagement and understanding. Thus, the Yojo game can be considered a viable instructional tool for supporting value-based learning in a contextually meaningful way.

This improvement suggests that the Yojo game helps students understand abstract Pancasila concepts more concretely and accessibly. The interactive nature of game-based learning encourages active participation and experiential learning, which supports deeper conceptual understanding. In addition, integrating local cultural elements makes the learning process more relevant to students' daily experiences, thereby strengthening both engagement and the internalization of values. These findings highlight that combining digital interactivity with cultural context is an effective approach for improving the quality of values-based education. These findings are also consistent with the student perception survey, which showed a predominance of positive evaluations of the Yojo game. Thus, the effectiveness of learning is evident not only in improved cognitive outcomes but also in increased student motivation and engagement. Overall, these results indicate that the Yojo game serves as an innovative learning medium, enhancing students' understanding of Pancasila values and creating a more engaging, contextual, and meaningful learning experience.

The findings of this study demonstrate that using the Yojo game as a learning medium rooted in local wisdom significantly enhances understanding and supports the internalization of Pancasila values. These findings are evident not only in improved student learning outcomes but also in positive perceptions and conceptual connections between the values of Pancasila and the local Kaili culture. *First*, the connection between Pancasila's values and Kaili local wisdom indicates that Pancasila's values have a strong cultural foundation in community life. This reinforces the view that national values do not exist in the abstract but are rooted in local social and cultural practices. The semantic parallels between the principles of Pancasila and Kaili cultural expressions make the learning process more contextual, as students can connect the material to their daily experiences. This explains why integrating local culture into learning materials is crucial for strengthening conceptual understanding and the internalization of values.

Second, the students' perception results indicate that the use of the Yojo game received a very positive response, with a predominance of high ratings. This finding suggests that game-based learning media not only enhance cognitive aspects but also increase student engagement and motivation to learn. The high level of student acceptance of the Yojo game can be explained by its interactive, visual, and contextual features, which help reduce the boredom often associated with conventional learning. Furthermore, the absence of negative responses indicates that students with relatively homogeneous backgrounds widely accept this approach. *Third*, the improvement in learning outcomes, as indicated by a moderate N-Gain score and a significant difference between the pre-test and post-test ($p < 0.05$), suggests that the Yojo game enhances students' understanding. This improvement not only reflects the success of using digital media but also demonstrates that integrating local wisdom is a key factor in facilitating the internalization of values. By linking the abstract concepts of Pancasila to a familiar cultural context, students find it easier to understand and retain the material studied.

These findings align with Culturally Responsive Teaching (CRT) theory, which emphasizes that learning effectiveness is significantly influenced by the connection between instructional content and students' cultural backgrounds (Hilliard et al., 2025; Siliunas et al., 2024). From a CRT perspective, culturally relevant learning not only enhances cognitive understanding but also strengthens students' emotional engagement and sense of identity in the learning process (Ningsih et al., 2026; Putri et al., 2026). In this study, integrating Kaili cultural values into the Yojo game serves as a bridge between the abstract concepts of Pancasila and students' real-life experiences. This allows students not only to understand the values theoretically but also to internalize them through a familiar cultural context. Thus, the increase in student engagement is due not only to technological factors but also to the meaningful connection between the learning material and students' socio-cultural reality.

From the perspective of Cognitive Load Theory, the effectiveness of learning through the Yojo game can be explained by cognitive load reduction (Skulmowski & Rey, 2020). Conventional, text-based learning tends to increase extraneous cognitive load, especially when students encounter abstract concepts such as the values of Pancasila (Novia & Aznam, 2026; Subandi et al., 2026). Conversely, presenting material through visual and interactive media in the game enables a more structured, gradual distribution of information (segmented learning), thereby reducing irrelevant cognitive load. Additionally, the integration of visual, narrative, and interactive elements in the Yojo game supports the dual coding process, in which information is processed through verbal and visual channels simultaneously. This strengthens concept retention and understanding, as reflected in improved student learning outcomes on the post-test.

These findings can also be explained through a constructivist perspective, in which learning is viewed as an active process of constructing knowledge through experience (Li et al., 2026; Tian et al., 2026). The Yojo game provides a learning environment that allows students to interact directly with the material, make decisions, and explore the values of Pancasila in a more concrete context (Miao et al., 2025; Veselinovic et al., 2025). This process encourages meaning-making, in which students build understanding from their own learning experiences rather than passively receiving information. The findings of this study are also consistent with various previous studies showing that digital game-based learning can enhance student motivation, engagement, and learning retention (Chuang et al., 2025; Yang & Chung, 2026). However, the primary contribution of this study lies in integrating local wisdom as a core component of digital learning design. Unlike previous research, which generally focused on interactivity and technology, this study demonstrates that cultural dimensions play a strategic role in enhancing learning effectiveness. The integration of local values not only enhances the material's relevance but also strengthens affective dimensions, such as a sense of belonging, cultural identity, and pride in local values (Afandi et al., 2026; Niewiadomski et al., 2025; Salim et al., 2026). Thus, game-based learning that integrates local wisdom functions not only as a cognitive aid but also as a means of shaping students' character and identity. This approach demonstrates that educational innovation in the digital age must not focus solely on technology but must also consider cultural context as a key factor in creating meaningful and sustainable learning.

The implications of this study suggest that developing game-based learning media that integrate local wisdom can serve as an innovative strategy in Pancasila education. This approach not only improves learning outcomes but also strengthens students' cultural identity and national values. Therefore, integrating digital technology and local culture requires further development as a learning model that addresses educational needs in the digital age. However, this study has limitations, particularly regarding the relatively small sample size and the research scope being limited to a single school. Additionally, the research design lacked a control group, so the findings require further testing in a broader context. Consequently, future research is recommended to employ a stronger experimental design and include a more diverse sample to enhance the generalizability of the findings.

CONCLUSION

This study indicates that the use of the Yojo digital educational game, which integrates Kaili local wisdom, is associated with improvements in students' understanding of Pancasila values and supports the process of value internalization. The findings reveal strong alignment between Pancasila values and Kaili local culture, enabling learning to be more contextual and meaningful. In addition, students' perceptions of the Yojo game fall into the high-to-very high categories, suggesting that this learning medium enhances engagement, motivation, and the overall learning experience. Empirically, the results show a significant improvement in students' learning outcomes from pre-test to post-test, indicating the potential effectiveness of the intervention in improving cognitive understanding. However, these findings primarily reflect cognitive outcomes and students' perceptions; therefore, claims regarding value internalization should be interpreted with caution. The results highlight that integrating digital technology with local wisdom can support meaningful learning experiences and foster students' cultural awareness, though further investigation is needed to assess the long-term affective and behavioral impacts. This study contributes to theory by extending the application of culturally responsive teaching in digital game-based learning, particularly in the context of values education. Practically, it provides an alternative approach for educators and instructional designers to integrate local cultural values into digital learning media to enhance contextual relevance and student engagement.

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