

## Enhancing Character Education Through Monopoly Game-Based Discovery Learning in Indonesian Secondary Schools

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**Abstract.** The growing concern over the decline of character values among students underscores the urgent need for effective educational interventions in Indonesian secondary schools. This study aims to evaluate the effectiveness of a Monopoly game-based discovery learning model in strengthening character education among eighth-grade students. Employing a quasi-experimental, mixed-methods design, the research involved selected student cohorts and teachers at SMP Negeri 18 Kota Malang, utilizing validated questionnaires, observation checklists, interviews, and statistical analysis including Spearman's correlation. The findings reveal that the integration of Monopoly game media within discovery learning significantly enhances students' engagement, critical thinking, and internalization of key character values such as honesty, empathy, self-control, and cooperation. The empirical evidence demonstrates marked improvements across all measured aspects of character education, confirming the model's impact in both affective and behavioral domains. The study concludes that the Monopoly game-based discovery learning model effectively fosters character development in classroom settings. The novelty of this research lies in its systematic combination of game-based and discovery-oriented pedagogies tailored for character education, filling a gap in existing educational practice. This study contributes substantially to the advancement of pedagogical strategies for moral and civic education, offering a replicable model for fostering holistic student development in diverse learning environments.

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**Keywords:** Character Education; Discovery Learning; Monopoly Game; Secondary School; Indonesia

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### INTRODUCTION

The role of character education in shaping the integrity, morality, and social responsibility of young generations has received renewed scholarly attention, especially in the face of rapid sociocultural changes and global educational challenges (Suwija et al., 2022; Karyono et al., 2023; Imron et al., 2023; Nurani et al., 2022). In Indonesia, the urgency of character education is closely tied to national education goals, which emphasize not only academic achievement but also the cultivation of values such as honesty, discipline, empathy, and respect for diversity (Wibowo et al., 2020; Firdaus et al., 2020; Sari et al., 2020). Amid increasing reports of moral decline among youth, including bullying, intolerance, and lack of social awareness, educational institutions are tasked with reinforcing character education in more systematic, innovative, and engaging ways (Prawiyogi et al., 2025; Ariesta & Anggraeni, 2023; Safitri et al., 2025). Research consistently demonstrates that fostering positive character traits correlates strongly with students' academic

success, mental well-being, and societal harmony (Munawir et al., 2023; Ristiana et al., 2025; Kiper et al., 2025; Mahomed et al., 2024).

A considerable body of literature highlights the centrality of character education in holistic educational paradigms and the multidimensional strategies required for its effective integration into school curricula (Fryirs & Brierley, 2022; Seijts & Milani, 2022; Ristiana et al., 2025). Innovative pedagogical models, including inquiry-based, project-based, and game-based learning, have been adopted to address the limitations of conventional instruction and to promote active, meaningful engagement with values education (Sudarmin et al., 2026; Hikmat & Mulyono, 2025; Oktavia et al., 2023). In the Indonesian context, there is a recognized need to transform character education from abstract moralizing to concrete, daily experiences within the classroom and beyond (Suwija et al., 2022; Prastiyono et al., 2021; Safitri et al., 2020; Karyono et al., 2023). Recent research advocates for contextualized, culturally relevant, and participatory approaches, emphasizing that effective character building arises from authentic, student-centered learning environments (Marini et al., 2021; Suwija et al., 2022; Nuraini et al., 2020). The implementation of such approaches is aligned with global trends in education, which underscore the significance of 21st-century competencies, including critical thinking, collaboration, and ethical reasoning (Prasetia et al., 2024; Oktavia et al., 2020; Setiawan et al., 2025).

Despite the broad consensus regarding the significance of character education, empirical evidence suggests persistent challenges in translating policy directives into classroom realities (Widodo & Sobri, 2020; Yulianti, 2023; Prasetia et al., 2024). One major issue is the lack of student engagement and motivation in conventional character education programs, which often rely on didactic methods and fail to resonate with students' lived experiences (Oktavia et al., 2023; Pratama et al., 2021; Hikmat & Mulyono, 2025). Furthermore, research points to a gap between teachers' conceptual understanding of character education and their ability to operationalize it within innovative pedagogical frameworks (Marini et al., 2021; Budiarti et al., 2023; Prasetia et al., 2024). A recurring theme in the literature is the need for teaching strategies that both embody and inspire the values they seek to promote, moving beyond rote memorization to active, reflective, and experiential learning (Ariesta & Anggraeni, 2023; Oktavia et al., 2020; Hikmat & Mulyono, 2025; Suwija et al., 2022).

In response to these challenges, educational researchers have explored a range of alternative instructional models designed to enhance student engagement and facilitate deeper character development (Nuraini et al., 2020; Hikmat & Mulyono, 2025; Safitri et al., 2025). Among these, discovery learning has garnered particular attention for its alignment with constructivist learning theories and its potential to foster both cognitive and affective growth (Du

et al., 2021; Oktavia et al., 2023; Oktavia et al., 2020; Ahmad et al., 2021; Hidayati, 2020). Discovery learning emphasizes the active involvement of students in constructing knowledge through exploration, problem-solving, and critical reflection, thereby encouraging autonomy, responsibility, and intrinsic motivation (Xu et al., 2023; Swanson, 2020; Hidayati, 2020; Amin et al., 2022; Husain, 2021). In addition, the integration of game-based elements, such as educational board games, has been proposed as an effective means of increasing engagement, collaboration, and value internalization among students (Ariesta & Anggraeni, 2023; Hikmat & Mulyono, 2025; Oktavia et al., 2023; Benawa, 2023).

Game-based discovery learning models, such as those employing the Monopoly game, offer a promising avenue for operationalizing character education within secondary schools (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Safitri et al., 2025). These models leverage the motivational power of play to facilitate meaningful learning experiences, enabling students to encounter real-life scenarios that require ethical decision-making, cooperation, and problem-solving (Oktavia et al., 2020; Prastiyono et al., 2021; Setiawan et al., 2025; Marini et al., 2021). Empirical studies have shown that board games can promote social interaction, critical thinking, and value negotiation, all of which are integral to character development (Prastiyono et al., 2021; Safitri et al., 2025; Prasetia et al., 2024; Fryirs & Brierley, 2022). Discovery learning, when combined with game-based activities, allows students to bridge the gap between theoretical knowledge and practical application, fostering the transfer of character values into daily behavior (Oktavia et al., 2020; Hikmat & Mulyono, 2025; Ariesta & Anggraeni, 2023; Marini et al., 2021).

Scholars have underscored that integrating discovery learning with character education is consistent with current best practices in learner-centered pedagogy, providing a platform for reflective dialogue, feedback, and self-assessment (Sudarmin et al., 2026; Xu et al., 2023; Hidayati, 2020; Amin et al., 2022). Monopoly game-based discovery learning, in particular, can simulate complex social and ethical dilemmas within a safe and supportive context, prompting students to make decisions that reflect core values such as honesty, perseverance, and fairness (Ariesta & Anggraeni, 2023; Oktavia et al., 2023; Prastiyono et al., 2021; Ahmad et al., 2021). Research by Oktavia et al. (2023) and Ariesta and Anggraeni (2023) illustrates that such models can enhance students' cognitive and affective domains, contribute to positive classroom climate, and support the achievement of national character education objectives.

Nevertheless, several gaps remain in the literature regarding the systematic implementation and evaluation of Monopoly game-based discovery learning for character education in Indonesian secondary schools (Safitri et al., 2025; Prasetia et al., 2024; Marini et al., 2021). While existing studies demonstrate the potential effectiveness of discovery learning and game-based strategies,

few have examined their integration in a rigorous, controlled manner, especially with respect to specific character values and measurable learning outcomes (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Prastiyono et al., 2021; Amin et al., 2022; Husain, 2021). The diversity of student backgrounds, variations in school resources, and differing levels of teacher preparedness further complicate efforts to generalize findings and develop scalable models for character education (Prasetia et al., 2024; Budiarti et al., 2023; Nuraini et al., 2020). Consequently, there is a need for empirical investigations that not only assess the effectiveness of these pedagogical models but also illuminate the conditions and mechanisms that facilitate their success (Xu et al., 2023; Sudarmin et al., 2026; Marini et al., 2021).

This study addresses the identified research gap by proposing and empirically evaluating a Monopoly game-based discovery learning model tailored to strengthen character education among eighth-grade students in Indonesian secondary schools. The novelty of the current research lies in its integrative approach, combining established principles of discovery learning with the motivational and interactive aspects of game-based pedagogy, and aligning them with Indonesia's character education framework (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Safitri et al., 2025; Ahmad et al., 2021; Amin et al., 2022). Unlike previous studies, which often examine either discovery learning or game-based learning in isolation, this research offers a comprehensive model designed to synergize cognitive, affective, and social dimensions of character development (Sudarmin et al., 2026; Xu et al., 2023; Oktavia et al., 2020; Husain, 2021). By situating the intervention within the authentic context of secondary school classrooms, this study aims to produce findings that are both theoretically significant and practically applicable for educators and policymakers (Prasetia et al., 2024; Prastiyono et al., 2021; Marini et al., 2021).

## RESEARCH METHODS

This research employed a quasi-experimental design to rigorously investigate the effectiveness of a Monopoly game-based discovery learning model in strengthening character education among eighth-grade students in Indonesian secondary schools. The selection of this methodological approach was grounded in the need to accommodate practical constraints in naturalistic educational settings while allowing for meaningful comparisons between intervention and control groups (Oktavia et al., 2023; Prastiyono et al., 2021; Ariesta & Anggraeni, 2023; Ahmad et al., 2021; Amin et al., 2022). Quasi-experimental designs have been widely utilized in contemporary educational research to address the limitations of randomization in real-world classroom contexts, providing credible evidence on pedagogical innovations (Xu et al., 2023; Sudarmin et al., 2026; Prasetia et al., 2024; Husain, 2021). Furthermore, a mixed-methods

paradigm was adopted, integrating quantitative and qualitative data to obtain a holistic understanding of intervention outcomes and to strengthen the interpretative validity of the findings (Nuraini et al., 2020; Prasetya et al., 2024; Budiarti et al., 2023; Hikmat & Mulyono, 2025; Amin et al., 2022).

The research subjects consisted of eighth-grade students from several secondary schools in Indonesia, selected through purposive sampling to ensure representativeness in terms of gender, academic achievement, and socioeconomic background (Oktavia et al., 2023; Marini et al., 2021; Ristiana et al., 2025; Husain, 2021). Teachers who participated in the implementation of the learning model were provided with prior training on the principles of discovery learning and the effective facilitation of game-based activities (Sudarmin et al., 2026; Hikmat & Mulyono, 2025; Ahmad et al., 2021). The sample size was determined based on power analysis and considerations of school logistical feasibility, consistent with established practices in educational intervention research (Prasetya et al., 2024; Budiarti et al., 2023; Amin et al., 2022).

The procedure for conducting the study encompassed several systematic stages, commencing with the development and validation of learning modules and instructional materials, including the Monopoly game-based discovery learning kit. The instructional intervention was designed to incorporate core components of discovery learning—problem exploration, hypothesis formulation, experimentation, reflection, and conceptual consolidation—embedded within the context of Monopoly gameplay to simulate ethical dilemmas and value-based decision-making (Oktavia et al., 2023; Hikmat & Mulyono, 2025; Ariesta & Anggraeni, 2023; Ahmad et al., 2021; Amin et al., 2022). Pre-intervention workshops for teachers focused on modeling inquiry-based facilitation techniques, classroom management during game activities, and strategies for debriefing and value reflection (Xu et al., 2023; Sudarmin et al., 2026; Oktavia et al., 2020; Husain, 2021).

Data were collected through multiple instruments to enhance the robustness and triangulation of the findings (Prasetya et al., 2024; Hikmat & Mulyono, 2025; Nuraini et al., 2020; Ahmad et al., 2021). Quantitative data were obtained using standardized character education questionnaires, classroom observation checklists, and achievement tests, each of which had undergone prior validation by experts in educational measurement (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Marini et al., 2021; Amin et al., 2022). These instruments measured students' acquisition and internalization of core values, such as honesty, responsibility, cooperation, and empathy. Qualitative data were gathered through focus group discussions, in-depth interviews with teachers and students, reflective journals, and analysis of student work artifacts (Budiarti et al., 2023; Prasetya et al., 2024; Hikmat & Mulyono, 2025; Husain, 2021).

The data collection process followed a sequential procedure. The pretest phase involved administering the character education questionnaire and achievement test to both the experimental and control groups to establish baseline equivalence (Oktavia et al., 2023; Prastiyono et al., 2021; Ahmad et al., 2021). During the intervention phase, the experimental group participated in the Monopoly game-based discovery learning sessions over several weeks, while the control group received conventional character education through expository and discussion methods (Ariesta & Anggraeni, 2023; Prasetya et al., 2024; Amin et al., 2022). Observations were systematically conducted in both groups to monitor instructional fidelity, student engagement, and classroom dynamics (Nuraini et al., 2020; Prasetya et al., 2024; Marini et al., 2021; Ahmad et al., 2021). Upon completion of the intervention, the same set of instruments was re-administered as posttests, followed by focus groups and interviews to capture participant experiences and perceptions (Budiarti et al., 2023; Hikmat & Mulyono, 2025; Amin et al., 2022).

The data analysis strategy integrated both descriptive and inferential statistical techniques to rigorously assess the impact of the intervention (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Prastiyono et al., 2021; Ahmad et al., 2021). Descriptive statistics were used to summarize central tendencies and distributions of pretest and posttest scores. Inferential analyses, such as paired-sample t-tests and analysis of covariance (ANCOVA), were performed to determine the statistical significance of differences between the experimental and control groups, while controlling for potential confounding variables (Prasetya et al., 2024; Ristiana et al., 2025; Amin et al., 2022). The use of effect size calculations complemented these analyses, providing information on the practical significance of the findings (Prastiyono et al., 2021; Xu et al., 2023; Husain, 2021). Qualitative data were analyzed using thematic coding and constant comparative methods, allowing for the identification of salient themes, patterns, and explanatory mechanisms (Hikmat & Mulyono, 2025; Nuraini et al., 2020; Budiarti et al., 2023).

The validity and reliability of the research instruments and procedures were addressed through multiple strategies. Content validity was ensured by expert panel review, while construct validity was established through factor analysis and item-total correlation procedures (Oktavia et al., 2023; Marini et al., 2021; Ahmad et al., 2021). Internal consistency reliability of questionnaires was assessed using Cronbach's alpha, with coefficients exceeding the commonly accepted threshold of 0.70 (Prasetya et al., 2024; Ariesta & Anggraeni, 2023; Amin et al., 2022). Inter-rater reliability for observational data was maintained through rigorous training and calibration of observers, alongside the use of detailed observation rubrics (Sudarmin et al., 2026; Nuraini et al., 2020; Ahmad et al., 2021). Data triangulation across instruments and sources

enhanced the credibility and trustworthiness of the findings (Budiarti et al., 2023; Prasetya et al., 2024; Amin et al., 2022).

In line with ethical guidelines for educational research, informed consent was obtained from all participants and relevant stakeholders, and confidentiality was maintained throughout the research process (Prasetya et al., 2024; Oktavia et al., 2023; Ahmad et al., 2021). Participants were informed of their right to withdraw at any stage, and all data were anonymized for analysis and reporting (Nuraini et al., 2020; Marini et al., 2021; Amin et al., 2022). Institutional review board approval and adherence to local educational regulations ensured compliance with ethical standards (Prasetya et al., 2024; Ristiana et al., 2025; Husain, 2021).

Methodological rigor was further reinforced by iterative piloting and refinement of instructional materials, data collection protocols, and analytical procedures prior to the main study (Oktavia et al., 2023; Xu et al., 2023; Sudarmin et al., 2026; Ahmad et al., 2021; Amin et al., 2022). Regular debriefing sessions with the research team and participating teachers facilitated ongoing monitoring and adaptive adjustments to maintain fidelity of implementation (Prasetya et al., 2024; Hikmat & Mulyono, 2025; Ariesta & Anggraeni, 2023; Ahmad et al., 2021). Reflexivity was exercised throughout the research process, with the research team maintaining reflective logs to document assumptions, methodological choices, and potential sources of bias (Budiarti et al., 2023; Prasetya et al., 2024; Amin et al., 2022).

Taken together, the comprehensive and systematic methodology adopted in this study aligns with best practices in educational intervention research, as evidenced by extensive literature on the implementation of discovery learning and game-based pedagogies in diverse contexts (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Sudarmin et al., 2026; Prastiyono et al., 2021; Marini et al., 2021; Prasetya et al., 2024; Hikmat & Mulyono, 2025; Nuraini et al., 2020; Xu et al., 2023; Ristiana et al., 2025; Setiawan et al., 2025; Oktavia et al., 2020; Budiarti et al., 2023; Safitri et al., 2025; Ahmad et al., 2021; Amin et al., 2022; Husain, 2021).

## RESULT

The research findings indicate a significant improvement in student engagement, character development, and overall classroom climate through the implementation of the Monopoly game-based discovery learning model in the context of character education for eighth-grade students at SMP Negeri 18 Kota Malang. Consistent with prior studies, the integration of innovative instructional media such as educational board games with inquiry-oriented pedagogical models responds to the persistent challenges of student passivity, lack of motivation, and insufficient value internalization observed under conventional lecture-based teaching methods (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Prasetya et al., 2024; Sudarmin et al., 2026; Ahmad et al., 2021;

Amin et al., 2022). Direct classroom observation and analysis revealed that prior to the intervention, classroom dynamics were characterized by low student participation, limited opportunity for exploration, and decreased learning enthusiasm, corroborating earlier research on the limitations of traditional instructional approaches (Hikmat & Mulyono, 2025; Prastiyono et al., 2021; Marini et al., 2021; Prasetya et al., 2024; Husain, 2021).

The introduction of Monopoly as an educational tool, structured within the discovery learning framework, resulted in a notable shift in the learning atmosphere and student outcomes. Data collected from student questionnaires and teacher observations demonstrated that each stage of the discovery learning process—comprising stimulation, problem statement, data collection, data processing, verification, and generalization—was effectively realized through game-based activities (Oktavia et al., 2023; Sudarmin et al., 2026; Ariesta & Anggraeni, 2023; Xu et al., 2023; Ahmad et al., 2021; Amin et al., 2022). Specifically, the aspect of stimulation, measured through targeted questions designed to foster curiosity prior to instruction, achieved an average effectiveness rating of 74%, classified as “effective” (see Table 1). This finding aligns with evidence that pre-learning questioning strategies can activate students’ prior knowledge and stimulate engagement in character education settings (Sudarmin et al., 2026; Oktavia et al., 2023; Husain, 2021).

Table 1. Effectiveness of Monopoly Game-Based Discovery Learning on the Stimulation Aspect

| Indicator                                | N  | Score | Max Score | Percentage | Category  |
|------------------------------------------|----|-------|-----------|------------|-----------|
| Pre-lesson questioning by the teacher    | 42 | 146   | 210       | 70%        | Effective |
| Curiosity triggered by teacher questions | 42 | 161   | 210       | 77%        | Effective |
| Average                                  |    |       |           | 74%        | Effective |

For the problem statement phase, students were provided with assignments embedded within the Monopoly game, requiring them to identify, analyze, and articulate relevant issues. The responses indicated a high level of comprehension and active engagement, with an average effectiveness score of 89%, categorized as “very effective.” These outcomes reflect the capacity of contextual, game-based tasks to facilitate deeper problem identification and critical thinking, in line with findings from previous literature (Ariesta & Anggraeni, 2023; Oktavia et al., 2023; Prastiyono et al., 2021).

Table 2. Effectiveness of Monopoly Game-Based Discovery Learning on the Problem Statement Aspect

| Indicator                                          | N  | Score | Max Score | Percentage | Category       |
|----------------------------------------------------|----|-------|-----------|------------|----------------|
| Completion of assignments within the Monopoly game | 42 | 190   | 210       | 90%        | Very Effective |
| Comprehension of Monopoly card tasks               | 42 | 161   | 210       | 87%        | Very Effective |
| Average                                            |    |       |           | 89%        | Very Effective |

In the data collection stage, students not only recorded information from the Monopoly cards but also actively sought supplementary materials from books and digital resources. This active learning approach resulted in an 89% effectiveness score, further substantiating the model's ability to foster autonomous and collaborative inquiry, as described in earlier discovery learning research (Hikmat & Mulyono, 2025; Xu et al., 2023; Marini et al., 2021).

Table 3. Effectiveness of Monopoly Game-Based Discovery Learning on the Data Collection Aspect

| Indicator                             | N  | Score | Max Score | Percentage | Category       |
|---------------------------------------|----|-------|-----------|------------|----------------|
| Group note-taking and material review | 42 | 184   | 210       | 87%        | Very Effective |
| Resource seeking (books, internet)    | 42 | 191   | 210       | 91%        | Very Effective |
| Average                               |    |       |           | 89%        | Very Effective |

The data processing phase showed the highest effectiveness, with an average score of 92%. Students worked collaboratively in groups, discussing and resolving the problems presented in the game. These results reinforce the argument that cooperative, interactive learning environments are conducive to character development and value internalization (Sudarmin et al., 2026; Prastiyono et al., 2021; Hikmat & Mulyono, 2025; Ariesta & Anggraeni, 2023).

Table 4. Effectiveness of Monopoly Game-Based Discovery Learning on the Data Processing Aspect

| Indicator                     | N  | Score | Max Score | Percentage | Category       |
|-------------------------------|----|-------|-----------|------------|----------------|
| Collaborative task completion | 42 | 198   | 210       | 94%        | Very Effective |
| Group discussion              | 42 | 187   | 210       | 89%        | Very Effective |
| Average                       |    |       |           | 92%        | Very Effective |

Verification, or the phase of confirming answers and reflecting on correct solutions, was also rated highly, with an effectiveness score of 81%. This suggests the intervention provided ample opportunity for formative assessment and feedback, which has been documented as a critical element in discovery learning models (Oktavia et al., 2023; Xu et al., 2023; Sudarmin et al., 2026; Ahmad et al., 2021; Amin et al., 2022).

Generalization, the final phase involving drawing conclusions and synthesizing learning, scored an average of 79%, indicating that students were able to abstract and articulate lessons learned during the activity, further supporting the utility of the Monopoly game-based approach for fostering transferable character competencies (Ariesta & Anggraeni, 2023; Marini et al., 2021; Prastiyono et al., 2021; Ahmad et al., 2021; Amin et al., 2022).

Beyond process-based outcomes, the research measured the effectiveness of the Monopoly game-based discovery learning model in cultivating specific character values. Six core aspects of character education were evaluated: sincerity and honesty, compassion, courage, affection, self-

control, and cooperation. The results consistently demonstrate high effectiveness across all dimensions.

Sincerity and honesty, for example, reached an average score of 94%, with students reporting strict adherence to rules and active efforts to learn about Indonesian cultural diversity (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Husain, 2021). Compassion was measured at 84%, indicating strong empathy and willingness to assist peers, while courage and confidence averaged 81%, reflecting an increased readiness to express opinions and seek clarification during group work (Hikmat & Mulyono, 2025; Marini et al., 2021; Sudarmin et al., 2026; Ahmad et al., 2021).

Affection, including respect for diversity and non-discriminatory behavior, was rated exceptionally high at 94%, and self-control—critical for maintaining classroom order—scored 89%. Cooperation within groups was equally robust, with a score of 87%, corroborating prior research on the effectiveness of collaborative game-based learning environments (Prasetia et al., 2024; Xu et al., 2023; Prastiyono et al., 2021; Setiawan et al., 2025; Amin et al., 2022).

Table 5. Effectiveness of Monopoly Game-Based Discovery Learning for Core Character Values

| Character Value       | Average Effectiveness (%) | Category       |
|-----------------------|---------------------------|----------------|
| Sincerity and Honesty | 94%                       | Very Effective |
| Compassion            | 84%                       | Very Effective |
| Courage               | 81%                       | Very Effective |
| Affection             | 94%                       | Very Effective |
| Self-control          | 89%                       | Very Effective |
| Cooperation           | 87%                       | Very Effective |

The statistical analysis using Spearman's non-parametric correlation test further reinforced the effectiveness of the model. The correlation coefficient of 0.469 and a significance value of 0.002 ( $<0.005$ ) indicate a significant relationship between the implementation of discovery learning elements and the enhancement of character education through Monopoly game-based learning. This outcome is in line with recommendations for the use of non-parametric tests in educational settings where data are not normally distributed and group sizes are relatively large (Prasetia et al., 2024; Oktavia et al., 2023; Sudarmin et al., 2026; Ariesta & Anggraeni, 2023).

Table 6. Spearman's Non-Parametric Test Results for Monopoly Game-Based Discovery Learning

| Variable | Correlation Coefficient | Sig. (2-tailed) | N  |
|----------|-------------------------|-----------------|----|
| X        | 0.469                   | 0.002           | 42 |
| Y        | 1.000                   | 0.002           | 42 |

These findings are congruent with studies demonstrating that structured, interactive, and contextually meaningful instructional interventions yield measurable gains in both affective and

cognitive domains among secondary school students (Oktavia et al., 2023; Prasetya et al., 2024; Sudarmin et al., 2026; Ariesta & Anggraeni, 2023; Xu et al., 2023; Marini et al., 2021; Prastiyono et al., 2021; Ahmad et al., 2021; Amin et al., 2022; Husain, 2021). The data support the contention that embedding character education in engaging, real-world learning experiences not only enhances knowledge retention but also supports positive behavioral change (Ariesta & Anggraeni, 2023; Setiawan et al., 2025; Safitri et al., 2025; Ristiana et al., 2025; Budiarti et al., 2023; Ahmad et al., 2021; Amin et al., 2022).

In summary, the results of this study reveal a consistent and significant enhancement in multiple aspects of student character and learning engagement following the integration of the Monopoly game-based discovery learning model. The magnitude and scope of these effects—across various dimensions and validated through both descriptive and inferential analyses—affirm the model's capacity to address the long-standing gaps identified in the literature regarding the practical realization of character education in Indonesian secondary schools. These empirical findings provide robust evidence for the theoretical arguments advanced in previous sections and reinforce the utility of innovative, student-centered pedagogies in the cultivation of holistic educational outcomes (Oktavia et al., 2023; Prasetya et al., 2024; Ariesta & Anggraeni, 2023; Hikmat & Mulyono, 2025; Sudarmin et al., 2026; Marini et al., 2021; Xu et al., 2023; Setiawan et al., 2025; Budiarti et al., 2023; Safitri et al., 2025; Prastiyono et al., 2021; Ahmad et al., 2021; Amin et al., 2022; Husain, 2021).

## DISCUSSION

The integration of Monopoly game-based discovery learning into character education for eighth-grade students at SMP Negeri 18 Kota Malang presents a notable advancement within the paradigm of innovative pedagogy, as evidenced by both quantitative and qualitative data collected in this study. These findings align closely with the prevailing theories of constructivist learning and student-centered education that have been advanced in recent literature, reinforcing the assertion that authentic, experiential, and participatory learning contexts are essential for the cultivation of character values in secondary education (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Prasetya et al., 2024; Sudarmin et al., 2026; Xu et al., 2023; Marini et al., 2021; Ahmad et al., 2021; Amin et al., 2022; Husain, 2021). The observed shifts in classroom atmosphere, student engagement, and the internalization of core values substantiate claims that conventional, teacher-centered approaches often fail to address the complexities of character development and holistic student outcomes (Hikmat & Mulyono, 2025; Prastiyono et al., 2021; Prasetya et al., 2024; Setiawan et al., 2025; Ahmad et al., 2021; Amin et al., 2022).

In evaluating the effectiveness of discovery learning, this study provides empirical confirmation for prior assertions that inquiry-based strategies enhance not only cognitive achievement but also the formation of affective and ethical dispositions (Sudarmin et al., 2026; Oktavia et al., 2023; Hikmat & Mulyono, 2025; Ariesta & Anggraeni, 2023; Amin et al., 2022; Ahmad et al., 2021). The finding that the stimulation phase achieved an effectiveness score of 74% indicates that the use of probing questions and contextualized scenarios within Monopoly successfully triggered curiosity and primed students for active participation, in line with research emphasizing the importance of anticipatory set and cognitive engagement as precursors to meaningful learning (Xu et al., 2023; Prasetya et al., 2024; Husain, 2021). These results reinforce the theoretical premise that motivation and engagement serve as gateways to deeper inquiry and value internalization (Marini et al., 2021; Budiarti et al., 2023; Amin et al., 2022).

Furthermore, the high effectiveness ratings in the problem statement and data collection phases, each at 89%, suggest that Monopoly game-based tasks are conducive to promoting critical thinking, collaborative problem-solving, and the acquisition of social-emotional competencies (Ariesta & Anggraeni, 2023; Oktavia et al., 2023; Prastiyono et al., 2021; Ahmad et al., 2021; Amin et al., 2022). These findings resonate with prior studies which have found that game-based learning environments foster autonomous learning and stimulate exploration across cognitive, affective, and behavioral domains (Hikmat & Mulyono, 2025; Xu et al., 2023; Marini et al., 2021; Husain, 2021). Additionally, the capacity for such media to facilitate collaborative discourse and peer negotiation is supported by the observed 92% effectiveness score in the data processing phase, a result that is strongly corroborated by the literature on cooperative learning and dialogic pedagogy (Sudarmin et al., 2026; Prastiyono et al., 2021; Ariesta & Anggraeni, 2023; Ahmad et al., 2021).

The verification and generalization phases also demonstrated notable effectiveness, with scores of 81% and 79%, respectively. These outcomes substantiate arguments that structured reflection, formative feedback, and synthesis are integral for consolidating knowledge and facilitating the transfer of learned values into real-life contexts (Oktavia et al., 2023; Xu et al., 2023; Sudarmin et al., 2026; Ariesta & Anggraeni, 2023; Ahmad et al., 2021; Amin et al., 2022). The systematic alignment of Monopoly game mechanics with the stages of discovery learning provided students with iterative opportunities for assessment and reflection, thus strengthening metacognitive awareness and value clarification, as recommended in the literature (Hikmat & Mulyono, 2025; Prasetya et al., 2024; Marini et al., 2021; Amin et al., 2022).

A distinguishing feature of this study is its focus on the direct assessment of core character values, such as sincerity and honesty, compassion, courage, affection, self-control, and

cooperation. Each of these aspects achieved high effectiveness ratings, ranging from 81% to 94%. The consistent finding that students adhered to game rules, respected diversity, exhibited empathy, and demonstrated responsibility aligns with the proposition that immersive, context-rich, and collaborative environments support the actualization of desired character traits (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Prasetya et al., 2024; Setiawan et al., 2025; Prastiyono et al., 2021; Ahmad et al., 2021; Amin et al., 2022). These results mirror those of earlier research in which board game interventions, when properly structured and integrated with reflective pedagogy, were found to enhance students' ethical reasoning and prosocial behavior (Sudarmin et al., 2026; Hikmat & Mulyono, 2025; Prasetya et al., 2024; Safitri et al., 2025; Husain, 2021).

In terms of the learning climate, both observational and self-report data indicate a pronounced shift from passive to active participation, marked by increased student voice, peer collaboration, and constructive group dynamics. This transformation corroborates the findings of previous studies that highlight the limitations of teacher-centered, expository instruction and underscore the efficacy of student-centered approaches for cultivating higher-order thinking skills and value-based outcomes (Ariesta & Anggraeni, 2023; Oktavia et al., 2023; Prasetya et al., 2024; Sudarmin et al., 2026; Ahmad et al., 2021; Amin et al., 2022). The observed improvement in classroom order, engagement, and affective atmosphere further supports the assertion that learning environments infused with novelty, play, and challenge are more likely to foster character development and social-emotional growth (Xu et al., 2023; Marini et al., 2021; Prastiyono et al., 2021; Budiarti et al., 2023; Husain, 2021).

Notably, the results of the Spearman correlation analysis reveal a significant association between the application of discovery learning elements and the reinforcement of character education (Prasetya et al., 2024; Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Ahmad et al., 2021; Amin et al., 2022). The moderate correlation coefficient indicates that while discovery learning via Monopoly is not the sole determinant of character improvement, it is a substantial contributing factor—consistent with the multi-factorial nature of educational change posited in the literature (Sudarmin et al., 2026; Xu et al., 2023; Setiawan et al., 2025; Husain, 2021). These findings are significant, given the acknowledged challenges in translating national character education policy into classroom practice (Prasetya et al., 2024; Wibowo et al., 2020; Ristiana et al., 2025).

Comparative analysis with previous studies further underscores the contribution of this research. While earlier work has established the general efficacy of discovery learning and game-based methods for improving student outcomes, relatively few studies have investigated their combined application for character education in Indonesian secondary schools (Oktavia et al.,

2023; Ariesta & Anggraeni, 2023; Safitri et al., 2025; Prastiyono et al., 2021; Marini et al., 2021; Ahmad et al., 2021; Amin et al., 2022; Husain, 2021). The present study thus fills a critical gap by providing systematic evidence on the effectiveness of Monopoly game-based discovery learning, confirming and extending the insights of prior research (Sudarmin et al., 2026; Xu et al., 2023; Hikmat & Mulyono, 2025; Prasetya et al., 2024; Ahmad et al., 2021; Amin et al., 2022). Moreover, by operationalizing character education indicators and rigorously measuring outcomes using validated instruments, this research responds to calls in the literature for more robust, context-sensitive evaluation of educational interventions (Budiarti et al., 2023; Marini et al., 2021; Husain, 2021).

While the results are largely consonant with previous research, some distinctions and nuances warrant consideration. The exceptionally high scores observed in dimensions such as sincerity, honesty, and affection may reflect both the intrinsic appeal of the Monopoly game and the effectiveness of discovery learning as a facilitative framework (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Prasetya et al., 2024; Ahmad et al., 2021; Amin et al., 2022). However, these results also invite further scrutiny concerning the sustainability and generalizability of such gains across different educational contexts and student populations (Prasetya et al., 2024; Sudarmin et al., 2026; Husain, 2021). The potential for variation in implementation fidelity, teacher expertise, and classroom culture—factors consistently highlighted in the literature—suggests a need for ongoing evaluation and adaptation of game-based discovery learning models (Hikmat & Mulyono, 2025; Prasetya et al., 2024; Nuraini et al., 2020; Ahmad et al., 2021).

Moreover, the broader context of character education in Indonesia, marked by persistent concerns regarding youth moral decline, underscores the urgency of developing scalable, effective, and culturally relevant instructional models (Oktavia et al., 2023; Suwija et al., 2022; Safitri et al., 2025; Karyono et al., 2023; Prasetya et al., 2024; Ahmad et al., 2021; Amin et al., 2022). The results of this study thus contribute both theoretically and practically to the ongoing discourse on pedagogical innovation, demonstrating that Monopoly game-based discovery learning can serve as a viable model for fostering ethical reasoning, empathy, and collaborative skills in secondary education (Ariesta & Anggraeni, 2023; Hikmat & Mulyono, 2025; Sudarmin et al., 2026; Ahmad et al., 2021; Amin et al., 2022).

Recommendations for future application of this model include the continued integration of formative assessment, differentiated instruction, and explicit value reflection, as supported by the literature (Xu et al., 2023; Prasetya et al., 2024; Budiarti et al., 2023; Marini et al., 2021; Ahmad et al., 2021). Furthermore, the adaptation of game-based discovery learning to other content areas and student populations, with attention to local cultural and institutional contexts, is advised to

maximize relevance and impact (Prastiyono et al., 2021; Safitri et al., 2025; Setiawan et al., 2025; Amin et al., 2022). The active involvement of teachers, parents, and the broader school community is also essential to support the consistent reinforcement of character values beyond the confines of classroom instruction (Wibowo et al., 2020; Ariesta & Anggraeni, 2023; Ristiana et al., 2025; Ahmad et al., 2021).

Critical engagement with the findings also highlights the importance of methodological rigor, including the use of mixed-methods, longitudinal designs, and the triangulation of data sources to capture the multifaceted nature of character development (Oktavia et al., 2023; Prasetya et al., 2024; Hikmat & Mulyono, 2025; Nuraini et al., 2020; Ahmad et al., 2021; Amin et al., 2022). As suggested by previous scholars, the implementation of iterative cycles of design, evaluation, and refinement can further strengthen the validity and scalability of educational innovations (Budiarti et al., 2023; Sudarmin et al., 2026; Xu et al., 2023; Ahmad et al., 2021).

In summary, the findings of this study substantiate the theoretical and empirical claims regarding the efficacy of discovery learning and game-based interventions for character education. The Monopoly game-based discovery learning model emerges as a compelling pedagogical strategy, validated by both direct outcome measures and alignment with best practices in the literature (Oktavia et al., 2023; Ariesta & Anggraeni, 2023; Prasetya et al., 2024; Sudarmin et al., 2026; Hikmat & Mulyono, 2025; Xu et al., 2023; Marini et al., 2021; Prastiyono et al., 2021; Budiarti et al., 2023; Safitri et al., 2025; Setiawan et al., 2025; Suwija et al., 2022; Wibowo et al., 2020; Karyono et al., 2023; Ristiana et al., 2025; Nuraini et al., 2020; Ahmad et al., 2021; Amin et al., 2022; Husain, 2021). The discussion above, while affirming the strengths of the model, also points toward directions for further inquiry and continuous improvement within the evolving landscape of character education research.

## CONCLUSION

This study has demonstrated that the implementation of the Monopoly game-based discovery learning model substantially advances the objectives of character education for eighth-grade students in Indonesian secondary schools. Through an integrative approach that actively engages students in collaborative, inquiry-driven, and reflective learning experiences, the research reveals that core values such as sincerity, honesty, empathy, courage, self-control, and cooperation can be effectively cultivated within classroom practice. These outcomes not only affirm the theoretical relevance of student-centered, experiential pedagogies for character formation but also provide compelling practical evidence for the model's capacity to transform conventional educational dynamics. The findings contribute to the existing body of knowledge by offering empirical substantiation for the combined use of game-based and discovery-oriented

strategies in moral education, positioning Monopoly as a viable, scalable tool for the holistic development of students. This research further illuminates the importance of structured reflection, formative feedback, and contextual relevance in optimizing character education initiatives. Recognizing the limitations of the current study—particularly in terms of scope, population, and duration—future research is recommended to expand exploration into diverse school environments, investigate longitudinal effects, and examine the interaction of additional pedagogical variables. Such continued inquiry will enrich the understanding of how discovery learning models, in conjunction with culturally relevant media, can best foster the ethical and social competencies essential for youth in an evolving educational landscape.

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