



Enhancing Elementary School Students' Understanding of the Character Values of the Formulators of Pancasila through Problem-Based Learning and Character Dilemma Cards

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Abstract. The urgency of this research lies in enhancing elementary school students' understanding of the character values of the formulators of Pancasila through problem-based learning and character dilemma cards. Character learning in Pancasila Education at the elementary school level should extend beyond factual knowledge of historical figures by enabling students to interpret character values and connect them with decision-making in everyday situations. The urgency of this study arises from the initial condition of fourth-grade students, whose understanding of the characters of the formulators of Pancasila remained suboptimal, indicating the need for more contextual, dialogic, and problem-oriented learning. This study aimed to examine the implementation of Problem-Based Learning (PBL) assisted by Kartu Dilema Tokoh and its changes in students' understanding of the characters of the formulators of Pancasila. The study employed Classroom Action Research based on the Kemmis and McTaggart model through two cycles of planning, action, observation, and reflection. The participants were 25 fourth-grade students at UPT SD Negeri 52 Gresik, Indonesia. Data were collected through learning outcome tests, student activity observations, PBL implementation observations, student worksheets, and documentation, and were analyzed descriptively. The findings showed that the mean score increased from 67.28 at the pre-action stage to 78.40 in Cycle I and 88.00 in Cycle II. Classical mastery increased from 52% to 64% and 88%, exceeding the 75% success criterion. Observations also indicated improved participation, dilemma analysis, reasoning, consideration of consequences, and connections between character values and everyday situations. The findings suggest that integrating PBL with Kartu Dilema Tokoh can support more active, contextual, and meaningful character learning.

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Introduction

Pancasila Education in elementary schools has a strategic role in developing not only students' civic knowledge but also their capacity to understand, evaluate, and enact values in everyday situations. Learning about the figures who formulated Pancasila therefore

should not be limited to memorizing names, historical events, or biographical information. Students need opportunities to interpret the character values demonstrated by these figures and relate those values to concrete decisions and behaviors in their own lives. Values education emphasizes that schools are not merely institutions for transmitting subject knowledge but also important contexts for developing students' moral and social orientations (Cheng, 2022). Moral education at the elementary level similarly involves a relationship between formal curricular content, classroom practices, reflection, and opportunities for students to connect moral concepts with everyday behavior (Bamkin, 2020). Character development is also influenced by the quality of school relationships and learning environments in which students encounter, discuss, and practice values (Zhu et al., 2022). These perspectives are particularly relevant to Pancasila Education because understanding the character of its historical figures requires students to move from factual knowledge toward value interpretation and behavioral relevance (Khotimah et al., 2026).

The need for such learning was identified in the initial condition of Grade IV students at UPT SD Negeri 52 Gresik. The preliminary assessment involving 25 students produced a mean score of 67.28, while the established KKTP was 75. Only 13 students achieved the mastery criterion, resulting in a classical mastery level of 52%. The classroom observation further indicated that students experienced difficulties not only in recalling information about the formulators of Pancasila but also in explaining the meaning of their character and connecting exemplary values with situations encountered in everyday life. This condition indicates a learning problem that involves both cognitive understanding and value-oriented interpretation. Research on primary education has shown that students' higher-order thinking develops more effectively when learning activities require them to analyze information, formulate explanations, evaluate alternatives, and justify conclusions rather than merely reproduce previously delivered information (Jegstad et al., 2025). The challenge in the present classroom is therefore not simply increasing students' factual recall but creating learning experiences that enable them to reason about character values in meaningful contexts.

Problem-Based Learning (PBL) provides a relevant pedagogical framework for addressing this type of learning difficulty because it positions problems as the starting point for inquiry and conceptual understanding (Yuliana et al., 2026). PBL encourages students to investigate problems, identify relevant information, discuss possible explanations, and formulate solutions through collaborative learning. A meta-analysis of K-12 studies found that PBL produced substantial effects on students' thinking and problem-solving skills and a high effect on academic achievement (Erdem, 2024). Evidence from elementary education also indicates that PBL can improve students' problem-solving and critical-thinking performance when learning is organized around meaningful problems rather than conventional knowledge transmission (Ahdhianto et al., 2020). A review of PBL implementation in K-8 mathematics and science similarly reported its potential to support academic achievement, knowledge retention, and conceptual development (Merritt et al., 2017). These findings provide a theoretical and empirical basis for applying PBL to learning situations in which students must interpret information and make reasoned decisions.

The relevance of PBL becomes stronger when the learning problem requires students to connect concepts with practical situations. PBL is characterized by the use of problems as vehicles for learning rather than as exercises presented only after the instructional process has been completed. Such an orientation can encourage students to examine the

relationship between knowledge and action. Research involving elementary learners found that PBL was associated with improved problem-solving and critical-thinking outcomes (Ahdhianto et al., 2020). Studies of problem-based curricula in primary education have likewise demonstrated that learners can develop complex thinking practices when they are given opportunities to work with authentic problems and construct solutions (Sidiq et al., 2021). The effectiveness of PBL, however, depends on the quality of the problems presented, the scaffolding provided by teachers, and the opportunities available for students to explain and reflect on their reasoning. PBL consequently needs an appropriate stimulus that is understandable to elementary students while remaining sufficiently challenging to generate discussion and decision-making.

The use of dilemma-based learning provides one possible mechanism for developing such a stimulus. Moral dilemmas place students in situations in which more than one possible response can be considered, requiring them to identify the problem, evaluate alternatives, consider consequences, and provide reasons for their decisions. This process is relevant to character learning because moral and character concepts become more meaningful when students are asked to deliberate about situations rather than merely define values. Recent research in Chinese primary schools found that moral dilemma discussions were used to stimulate classroom discussion and support students' critical thinking and judgment, while also providing a foundation for the development of practical wisdom (Huo et al., 2025). Research on moral education in Japanese elementary schools also shows that classroom moral education can function as a space for reflection and preparation for prosocial behavior beyond the formal lesson itself (Bamkin, 2020). Moral reasoning is likewise connected to broader developmental and social contexts, suggesting that opportunities to discuss reasons, perspectives, and consequences are relevant to children's moral development (Pinquart & Fischer, 2022).

The dialogic dimension of dilemma-based learning is important because students need to articulate why they select one response over another. Critical thinking in primary education is increasingly understood as requiring classroom practices that create opportunities for students to engage in dialogue, analysis, explanation, and practical application (Jegstad et al., 2025). Approaches based on philosophical inquiry similarly emphasize questioning, reasoning, argument construction, and collaborative discussion as mechanisms for developing children's higher-order thinking (Wu, 2021). A recent meta-analysis of Philosophy for Children research reported positive effects on children's cognitive development, particularly reasoning, critical thinking, and creativity (Wei & Chen, 2025). Another meta-analysis found a substantial effect of Philosophy for/with Children on critical thinking, emphasizing the importance of problem posing and dialogue in learning with children (Kilby, 2025). Although these approaches are not identical to PBL, they provide complementary evidence that structured problems followed by dialogue and justification can support deeper thinking among young learners.

The present study operationalizes this principle through the development and use of *Kartu Dilema Tokoh*. The cards are designed as concrete problem stimuli containing dilemma situations related to the exemplary character of the formulators of Pancasila. Instead of functioning as conventional information cards that simply present biographical facts, the cards introduce situations in which students must consider possible choices, consequences, and character values. Students are encouraged to identify the central problem, discuss alternative actions, justify their preferred decision, relate the decision to the character of the Pancasila formulators, and reflect on how the value could be

applied in everyday life. This design is consistent with evidence that elementary learning media can support character development when cultural and value content is integrated into meaningful learning experiences. Research on the use of cultural learning media in elementary schools demonstrates that learning media can be used to integrate cultural values into students' character development (Nurasiah et al., 2022). Character education integrated with reflective, collaborative, and elaborative learning processes has also been reported as a way of connecting value learning with students' classroom experiences (Sarkadi et al., 2022).

The combination of PBL and Kartu Dilema Tokoh is therefore conceptually different from using learning media merely to make lessons more attractive. The cards serve as structured problem triggers within the PBL process. Students do not simply observe pictures or read information about historical figures; they encounter situations that require them to interpret values and make decisions. The use of concrete and interactive learning experiences is consistent with broader evidence that active, socially interactive, and meaningful learning can support cognitive and social-emotional development in primary education (Parker et al., 2022). Creative and experiential approaches to values education similarly indicate that values can become more meaningful when students are involved in experiences that connect imagination, interpretation, and integration (Hong & Hong, 2022). The instructional value of the cards consequently lies in their function as a bridge between historical character knowledge and students' own moral reasoning.

The intervention is also relevant to the specific characteristics of Pancasila Education. Pancasila and Citizenship Education has an explicit relationship with character formation because civic learning in Indonesia includes values that are expected to be reflected in students' attitudes and behavior. Research on Pancasila and Citizenship Education has shown that character education can be integrated into classroom learning rather than being treated solely as an additional school program (Sarkadi et al., 2022). The integration of character development with culturally meaningful learning media has likewise been explored in Indonesian elementary education (Nurasiah et al., 2022). These studies support the relevance of value-oriented learning in the Indonesian context, but the instructional mechanism examined in the present study differs in its emphasis on dilemma-based problem stimuli and student justification of choices.

The existing literature reviewed for this study provides strong evidence for PBL, critical-thinking approaches, moral dilemma discussions, character education, and value-oriented learning, but these strands of literature are often examined separately. PBL research has primarily emphasized academic achievement, problem-solving, and cognitive outcomes (Erdem, 2024; Merritt et al., 2017). Research on moral dilemmas has focused more directly on moral reasoning, judgment, and practical wisdom (Huo et al., 2025). Studies of character education in Pancasila-related contexts have emphasized the integration of character values into broader learning models (Sarkadi et al., 2022) or the use of culturally relevant learning media (Nurasiah et al., 2022). Research on critical thinking has further highlighted the importance of dialogic and practical classroom approaches in primary education (Jegstad et al., 2025). The present study brings these strands together by using dilemma-based cards as the problem stimulus within PBL for learning the character of the formulators of Pancasila.

The novelty of this study lies in the instructional integration rather than in claiming that PBL, dilemma discussion, or learning cards are individually new approaches. Kartu Dilema Tokoh is positioned as a structured pedagogical stimulus that transforms historical-character material into concrete situations requiring analysis, choice,

justification, consequence consideration, and reflection. This integration is intended to address the specific learning difficulty identified in the preliminary observation: students could recall information about the formulators of Pancasila but had greater difficulty explaining the meaning of their character and connecting those values with everyday behavior. The intervention therefore targets a transition from knowing about exemplary figures to reasoning with the values represented by those figures. Such an orientation is consistent with contemporary primary-education research emphasizing the importance of carefully selected content that activates dialogue and higher-order thinking (Jegstad et al., 2025).

The classroom action research consequently examines both the implementation of PBL assisted by *Kartu Dilema Tokoh* and changes in students' understanding after the intervention. The study is guided by the assumption that learning becomes more meaningful when students encounter character values through problems that require active interpretation and reasoned decision-making. The research is particularly concerned with whether students become better able to identify character values, explain their relevance, justify decisions, consider consequences, and connect historical exemplary behavior with situations in everyday life. This focus extends the assessment of learning outcomes beyond factual recall and toward a more contextual understanding of character.

Based on the classroom problem, theoretical foundation, and research gap, this study investigates the implementation of PBL assisted by *Kartu Dilema Tokoh* in Pancasila Education for Grade IV students at UPT SD Negeri 52 Gresik. The study also examines changes in students' understanding of the character of the formulators of Pancasila following the intervention. The study is expected to contribute empirically to elementary Pancasila Education by demonstrating how a problem-oriented and dilemma-based learning stimulus can be integrated into classroom action research to facilitate students' understanding of character values and their application in everyday contexts.

Method

Research Design, Setting, and Participants

This study employed Classroom Action Research (CAR) to improve the learning process and learning outcomes of Grade IV students through systematic and reflective classroom action. The study adopted the spiral-reflective model of Kemmis and McTaggart, comprising four stages in each cycle: planning, acting, observing, and reflecting. The cyclical design enabled the intervention to be implemented, observed, evaluated, and progressively refined based on evidence obtained from classroom activities (Utomo et al., 2024). The study was conducted in two cycles, with one classroom meeting in each cycle.

The study was conducted in Grade IV at UPT SD Negeri 52 Gresik, Indonesia, during August–September 2026. The participants comprised all 25 students enrolled in the class, consisting of 13 boys and 12 girls. All students were included because the intervention was intended to improve the learning process and outcomes of the entire class rather than to select a subsample. The research consisted of a pre-action stage followed by two action cycles. The pre-action stage was conducted to identify students' initial learning conditions. Cycle I represented the initial implementation of Problem-Based Learning (PBL) assisted by *Kartu Dilema Tokoh*, while Cycle II was conducted based on the reflection and instructional refinement undertaken after Cycle I. The intervention

integrated PBL with *Kartu Dilema Tokoh* as contextual problem stimuli for learning about the character values of the formulators of Pancasila. The cards presented problematic situations involving exemplary character and Pancasila values. Students were engaged in identifying problems, considering alternative choices and consequences, discussing possible responses, justifying decisions, relating decisions to character values, and reflecting on their application in everyday situations.

Research Procedure and Intervention

Each action cycle followed the four stages of the Kemmis and McTaggart model: planning, acting, observing, and reflecting. During the planning stage, the researcher prepared the Rencana Pembelajaran Mendalam (RPM), Student Worksheets (LKPD), *Kartu Dilema Tokoh*, learning-outcome tests, student-activity observation sheets, a PBL implementation observation sheet, and a work-assessment rubric. The *Kartu Dilema Tokoh* were designed as contextual problem stimuli containing situations related to the exemplary character of the formulators of Pancasila. The situations encouraged students to identify problems, consider alternative choices, recognize relevant values, provide reasons, and formulate decisions based on Pancasila values.

During the acting stage, the intervention followed five PBL stages. First, students were oriented to the problem through dilemma situations presented in the cards. Second, they were organized into small groups with assigned roles and responsibilities. Third, students conducted individual or group inquiry by analyzing the dilemma, comparing alternatives, considering consequences, and relating the situation to the character values of the formulators of Pancasila. The teacher provided guiding questions and scaffolding according to students' learning needs. Fourth, students recorded their analysis in the LKPD and presented their group decisions and supporting reasons. Fifth, the teacher and students analyzed and evaluated the problem-solving process by discussing the decisions, reasons, relevant character values, and possible applications in everyday life.

During the observing stage, structured observation was conducted throughout the learning activities. Student activity was observed in terms of problem understanding, dilemma analysis, discussion, provision of reasons, respect for others' opinions, connection between decisions and character values, consideration of consequences, collaboration, presentation, and reflection. The implementation of the five PBL stages was also observed. LKPD and students' work were collected as supporting evidence of their analysis of dilemmas, consideration of alternatives, and justification of decisions.

During the reflecting stage, information obtained from learning-outcome tests, observations, and students' work was reviewed to identify aspects requiring instructional improvement. The reflection from each cycle informed the planning of the subsequent cycle. This process allowed the intervention to be refined in response to observed learning needs while maintaining the core PBL and *Kartu Dilema Tokoh* intervention.

Data Collection, Instruments, and Content Validation

Data were collected through tests, observations, and documentation. The learning-outcome test was administered at the pre-action stage and at the end of each action cycle to assess students' understanding of the character values of the formulators of Pancasila. The test comprised six multiple-choice and four essay items, with a maximum score of 100 and an individual mastery criterion of 75 based on the established KKTP. Observations documented student activities and the implementation of the five PBL stages. Student-activity indicators included problem identification, dilemma analysis,

discussion, consideration of Pancasila values, justification of decisions, collaboration, presentation, and reflection. Documentation included LKPD, students' work, assessment records, and classroom activity records.

The instruments comprised the learning-outcome test, student-activity observation sheet, PBL implementation observation sheet, LKPD, and work-assessment rubric. Student activity was assessed using 10 indicators scored from 1 to 4, with a maximum score of 40. The instruments and instructional materials were developed based on the learning objectives, research indicators, Grade IV characteristics, learning content, and PBL stages. Content validation was conducted through expert review by two validators, a cooperating teacher and a field supervisor. The review assessed content alignment, indicator measurability, language clarity, developmental appropriateness, PBL alignment, and the suitability of the *Kartu Dilema Tokoh* and LKPD. Feedback from the validators was used to refine the instruments and materials before implementation. This process constituted content validation through expert review rather than psychometric or construct validation.

Data Analysis and Success Criterion

Learning-outcome data were analyzed descriptively using the mean score, classical mastery percentage, and percentage improvement across the pre-action stage, Cycle I, and Cycle II. The mean score was calculated using:

$$\bar{X} = \frac{\sum X}{N}$$

where $\bar{X}$ represents the mean score, $\sum X$ represents the total score obtained by all students, and N represents the number of students.

Classical mastery was calculated as:

$$P = \frac{n}{N} \times 100\%$$

where P represents the percentage of classical mastery, n represents the number of students achieving a score of at least 75, and N represents the total number of students.

The percentage improvement in the mean learning outcome between two consecutive conditions was calculated as:

$$PI = \frac{X_2 - X_1}{X_1} \times 100\%$$

Observation data were analyzed descriptively to characterize changes in student engagement, collaboration, dilemma analysis, connection between decisions and character values, and reflection. Students' LKPD and work products were also analyzed descriptively as supporting evidence for interpreting changes in the learning process.

The action was considered successful when at least 75% of students achieved the individual learning criterion of 75. Changes in the mean learning outcome across the pre-action stage, Cycle I, and Cycle II were also examined. Observation data and students' work served as supporting evidence for evaluating the implementation of the intervention and determining whether further instructional refinement was required. The action was discontinued when the predetermined success criterion was achieved.

Ethical Considerations

The study was conducted under a research permission letter issued by Universitas Muhammadiyah Gresik through an official letter introducing and authorizing the implementation of the Teaching Practicum (Praktik Pengalaman Lapangan [PPL]), Letter No. 019/II.3.UMG/PPG/A/2026, dated 18 July 2026. Following the submission of the letter to UPTD SDN 52 Gresik, the researcher was permitted to conduct teaching and research activities at the school. The identities of the students were kept confidential and were not disclosed in the reporting of the research findings. The data collected were used solely for academic purposes and were managed and reported responsibly.

Results and Discussion

Results

Baseline and Cycle I Findings

The baseline assessment was conducted before the implementation of *Problem-Based Learning* (PBL) assisted by *Kartu Dilema Tokoh*. The assessment involved all 25 Grade IV students and was used to establish their initial learning outcomes on the characters of the formulators of Pancasila. As presented in Table 1, the total score was 1,682, with a mean score of 67.28. Thirteen students achieved the individual mastery criterion of 75, whereas 12 students did not reach the criterion, resulting in 52% classical mastery.

Table 1. *Baseline Learning Outcomes*

Indicator	Result
Number of students	25
Total score	1,682
Mean	67.28
Minimum score	20
Maximum score	100
Students achieving mastery	13
Students not achieving mastery	12
Classical mastery	52%
KKTP	75

The table 1 presents the learning outcomes obtained before the classroom action was implemented. The mean score of 67.28 remained 7.72 points below the KKTP of 75, while classical mastery reached only 52%. These findings indicate that 12 students had not achieved the expected level of mastery. The baseline results therefore provided the reference point for evaluating changes following the implementation of PBL assisted by *Kartu Dilema Tokoh*.

The baseline score distribution showed that nine students obtained scores below 60, three students scored between 60 and 74, three students scored between 75 and 89, and ten students obtained scores between 90 and 100. The learning difficulty was particularly evident in students' ability to explain the characters of the formulators of Pancasila in their own words and relate those characters to behaviors in everyday situations. Cycle I was conducted by implementing PBL assisted by *Kartu Dilema Tokoh*. The total score increased to 1,960, producing a mean score of 78.40. Sixteen students achieved scores of at least 75, while nine students remained below the criterion. Classical mastery consequently increased to 64%.

Table 2. *Cycle I Learning Outcomes*

Indicator	Result
Number of students	25
Total score	1,960

Mean	78.40
Minimum score	30
Maximum score	100
Students achieving mastery	16
Students not achieving mastery	9
Classical mastery	64%
KKTP	75

The Cycle I results show an increase in the class mean from 67.28 at baseline to 78.40. Sixteen of the 25 students achieved the KKTP, resulting in 64% classical mastery. The mean increased by 11.12 points, equivalent to a 16.52% relative increase from the baseline mean. Although the learning outcomes improved, classical mastery remained below the predetermined 75% success criterion. The mean score increased by 11.12 points from the baseline, corresponding to a relative increase of 16.52%. Classical mastery increased by 12 percentage points, from 52% to 64%. The Cycle I score distribution consisted of five students scoring below 60, four students scoring 60–74, two students scoring 75–89, and 14 students scoring 90–100. Individual score changes showed that 13 students improved, four students experienced lower scores, and eight students maintained their previous performance. The results indicated progress but did not yet satisfy the predetermined classical mastery criterion.

Cycle I Observation and Reflective Findings

Student activity during Cycle I was observed using ten indicators covering problem understanding, observation of the dilemma, discussion, provision of reasons, respect for others' opinions, connection between decisions and character values, consideration of consequences, collaboration, presentation, and reflection. Each indicator was scored on a four-point scale, producing a maximum individual score of 40. Individual observation scores ranged from 24 to 30, corresponding approximately to 60–75% of the maximum score.

Table 3. Cycle I Student Activity Observation

Indicator		Observation Finding
Understanding the problem		Some students required teacher guidance to understand the problem presented.
Observing the dilemma		Students began identifying conflicts and alternative choices in the dilemma.
Discussion		Group discussion occurred, although participation was not yet evenly distributed.
Giving reasons		Some students were still hesitant to explain the reasons for their decisions.
Respecting opinions		Students demonstrated respect when listening to different opinions.
Connecting character values		Students required prompts to relate decisions to the characters of the formulators of Pancasila.
Considering consequences		Students began considering possible consequences through group discussion.
Collaboration		Collaboration developed through the distribution of group roles.
Presentation		Some students remained passive during group presentations.
Reflection		Students began relating the learning experience to character values.

Cycle I observations indicate that students had begun engaging with the problem-solving process but had not yet demonstrated consistent participation across all indicators. Difficulties were particularly visible in providing reasons, connecting decisions with the characters of the formulators of Pancasila, and presenting group results. The findings suggested that clearer prompts, structured participation, and gradual scaffolding were needed in the subsequent cycle. The observation findings indicated that student participation was not yet evenly distributed. Several students tended to wait for their peers to express ideas, while others required teacher prompts

before explaining their reasoning. Students also needed additional support to connect their decisions in the dilemma situations with the exemplary characters of the formulators of Pancasila.

The implementation of PBL in Cycle I followed five stages: orienting students to the problem, organizing students for learning, guiding individual and group investigation, developing and presenting solutions, and analyzing and evaluating the problem-solving process. The five stages were implemented, but the observation findings indicated a need for clearer prompts, more explicit LKPD instructions, clearer group roles, increased opportunities for individual speaking, and gradual scaffolding during dilemma analysis. The reflection on Cycle I resulted in several refinements for Cycle II.

Table 4. *Cycle I Problems and Cycle II Refinements*

Cycle I Problem	Cycle II Refinement
Difficulty understanding questions	Questions and prompts were simplified and made more explicit.
Confusion when completing the LKPD	LKPD instructions were clarified and structured more systematically.
Some students were passive in groups	Group member roles were defined more clearly.
Low confidence during speaking activities	Opportunities for turn-taking were provided.
Difficulty analyzing dilemmas	Gradual scaffolding was provided during dilemma analysis.
Difficulty connecting decisions with character values	More focused prompts were provided to establish the connection.

The refinements in Cycle II were developed directly from the problems identified during Cycle I. The improvements focused on question clarity, LKPD guidance, equitable group participation, speaking opportunities, dilemma analysis, and connections between students' decisions and character values. The table demonstrates the iterative nature of the classroom action research process, in which Cycle I findings informed adjustments to the subsequent intervention.

Cycle II Findings

Cycle II was implemented after the refinements identified through the Cycle I reflection. The total learning outcome score increased to 2,200, with a mean score of 88.00. Twenty-two of the 25 students achieved scores of at least 75, while three students remained below the criterion. Classical mastery therefore reached 88%, exceeding the predetermined success criterion of 75%.

Table 5. *Cycle II Learning Outcomes*

Indicator	Result
Number of students	25
Total score	2,200
Mean	88.00
Minimum score	20
Maximum score	100
Students achieving mastery	22
Students not achieving mastery	3
Classical mastery	88%
KKTP	75

The Cycle II results show further improvement following the refinements made after Cycle I. The class mean increased to 88.00, while 22 of the 25 students achieved the KKTP. Classical mastery reached 88%, exceeding the predetermined threshold of 75%. Compared with the baseline condition, the mean increased by 20.72 points and classical mastery increased by 36 percentage points. The mean score increased by 9.60 points from

Cycle I, corresponding to a relative increase of 12.24%. Compared with the baseline condition, the mean increased by 20.72 points, representing a 30.80% relative increase. Classical mastery increased by 24 percentage points from Cycle I and by 36 percentage points from the baseline condition. The results show a progressive increase in learning outcomes across the three assessment points. Student activity in Cycle II was also observed using the same ten indicators as in Cycle I. Individual observation scores ranged from 27 to 40 out of 40. The highest score represented achievement across all observation indicators, while the lowest score indicated that some students still required support in particular aspects of participation and learning engagement.

Table 6. Cycle II Student Activity Observation

Indicator	Observation Finding
Understanding the problem	Students understood the presented problems more quickly.
Observing the dilemma	Students were increasingly able to identify alternative choices.
Discussion	Group discussions became more focused on the presented problems.
Giving reasons	Students provided reasons for their decisions more frequently.
Respecting opinions	Interactions involving different opinions became more constructive.
Connecting character values	Students more consistently connected decisions with character values.
Considering consequences	Students considered possible consequences when discussing choices.
Collaboration	Defined roles supported more balanced participation.
Presentation	Students appeared more prepared to present group decisions.
Reflection	Students more frequently connected the activity with Pancasila values.

Cycle II observations show more consistent participation across the ten indicators. Students demonstrated greater readiness to identify dilemmas, discuss alternatives, provide reasons, consider consequences, and relate their decisions to the characters of the formulators of Pancasila. The observation scores ranged from 27 to 40 out of 40, indicating improved engagement while also showing that some students continued to require support during particular learning activities. The implementation of PBL in Cycle II continued to follow the five stages used in Cycle I. The revised prompts, clearer LKPD instructions, structured group roles, speaking opportunities, and gradual scaffolding produced a more structured learning process. Observation data showed that the five PBL stages were implemented and that student participation was more evident during problem analysis, group discussion, presentation, and reflection.

Cross-Cycle Comparison and Achievement of the Success Criterion

The results across the baseline, Cycle I, and Cycle II assessments demonstrate a progressive change in learning outcomes.

Table 7. Cross-Cycle Comparison of Learning Outcomes

Aspect	Baseline	Cycle I	Cycle II	Change Baseline–Cycle II
Total score	1,682	1,960	2,200	+518
Mean	67.28	78.40	88.00	+20.72
Minimum score	20	30	20	–
Maximum score	100	100	100	–
Students achieving mastery	13	16	22	+9
Students not achieving mastery	12	9	3	–9
Classical mastery	52%	64%	88%	+36 percentage points

The cross-cycle comparison presents the overall change in learning outcomes during the classroom action research. The class mean increased from 67.28 at baseline to 78.40 in Cycle I and 88.00 in Cycle II. The number of students achieving mastery increased from 13 to 22, while classical mastery increased from 52% to 88%, indicating progressive improvement throughout the intervention. The class mean increased consistently from 67.28 at baseline to 78.40 in Cycle I and 88.00 in Cycle II. The number of students

achieving mastery also increased from 13 at baseline to 16 in Cycle I and 22 in Cycle II. Conversely, the number of students who had not achieved mastery decreased from 12 to nine and then to three. The relative changes in the class mean for each assessment interval are presented in Table 8.

Table 8. *Percentage Increase in Mean Learning Outcomes*

Comparison	Mean Difference	Percentage Increase
Baseline → Cycle I	11.12	16.52%
Cycle I → Cycle II	9.60	12.24%
Baseline → Cycle II	20.72	30.80%

The percentage increases describe changes in the class mean between the assessment points. The baseline-to-Cycle I comparison shows a 16.52% relative increase, followed by a 12.24% increase from Cycle I to Cycle II. Across the full intervention period, the mean increased by 20.72 points, equivalent to a 30.80% relative increase from the baseline mean. The achievement of the predetermined success criterion was assessed primarily through classical mastery, with a threshold of at least 75% of students achieving individual scores of 75 or higher. The results are summarized in Table 9.

Table 9. *Achievement of the Research Success Criterion*

Aspect	Target	Cycle I	Cycle II	Status
Mean learning outcome	Increased	78.40	88.00	Achieved
Classical mastery	≥75%	64%	88%	Achieved in Cycle II
Students achieving individual mastery	≥75	16 students	22 students	Increased

The success criterion was reached in Cycle II. Classical mastery increased from 64% in Cycle I to 88% in Cycle II, exceeding the predetermined threshold of 75%. The number of students achieving individual mastery also increased from 16 to 22. The mean learning outcome increased from 78.40 to 88.00, providing additional evidence of improvement across the intervention cycles. The classical mastery level of 88% in Cycle II exceeded the predetermined success criterion of 75%. The number of students achieving individual mastery increased to 22 of 25 students, leaving three students below the KKTP. Based on the predefined criterion, the classroom action research was concluded after Cycle II.

Discussion

PBL Assisted by Kartu Dilema Tokoh and Students' Learning Outcomes

This study examined the implementation of Problem-Based Learning (PBL) assisted by *Kartu Dilema Tokoh* to improve Grade IV students' understanding of the characters of the formulators of Pancasila. The findings indicate a progressive improvement in both learning outcomes and classroom participation across the two action cycles. The predefined classroom success criterion was reached in Cycle II, indicating that the action hypothesis was supported at the classroom level. The improvement is meaningful because the learning objective concerned not only students' ability to recall information about historical figures but also their ability to interpret exemplary character, consider choices, provide reasons, and relate values to everyday situations.

The initial learning condition suggests that students experienced difficulties when character learning was presented primarily as factual knowledge. Students were required to move from identifying historical figures toward interpreting the meaning of their character and applying those values to concrete situations. PBL provides a pedagogical structure that begins with problems and encourages students to investigate, discuss, and develop explanations rather than receive information passively. Research in elementary

education has shown that PBL can support higher-order learning processes, including problem solving and critical thinking, particularly when students are given opportunities to examine problems and formulate their own responses (Ahdhianto et al., 2020). Evidence from broader PBL research also indicates positive relationships between problem-oriented learning and students' thinking skills and academic achievement (Erdem, 2024).

The role of *Kartu Dilema Tokoh* is particularly relevant to this process because the cards converted abstract character values into concrete situations that required students to make decisions. The cards therefore functioned as structured problem triggers within the PBL process rather than merely as visual or motivational learning media. Learning media that integrate culturally meaningful values into elementary learning can facilitate students' engagement with character-related concepts when the learning activity requires students to interact with and interpret those values (Nurasiah et al., 2022). The present study extends this principle by embedding value-oriented situations directly into the problem-identification and inquiry stages of PBL.

The classroom observations provide an explanation for why learning outcomes improved progressively. During Cycle I, students had begun to identify conflicts and possible choices, but their explanations and connections between decisions and character values remained inconsistent. Students also required teacher prompts when considering consequences and expressing reasons. Such scaffolding is important because critical thinking in primary classrooms develops through carefully structured opportunities for students to examine meaningful content, articulate ideas, and engage in dialogue rather than through problem exposure alone (Jegstad et al., 2025). The refinement of prompts, LKPD instructions, group roles, speaking opportunities, and teacher scaffolding in Cycle II made the problem-solving process more structured. The improvement in learning outcomes should therefore be interpreted alongside the improvement in the learning process rather than as an isolated test-score effect.

Dilemma-Based Learning and Understanding of Character Values

The use of dilemmas provides an important mechanism for addressing the conceptual difficulty identified at the beginning of the study. Character values are difficult to understand deeply when students are only asked to memorize descriptions of exemplary figures. A dilemma requires students to identify a problem, consider alternative actions, anticipate consequences, and explain why one choice is preferable to another. Moral dilemma discussions in primary education have been associated with opportunities for students to develop practical reasoning by examining situations in which different considerations must be weighed before reaching a decision (Huo et al., 2025). The present study applies a comparable reasoning structure within Pancasila Education, although its focus is specifically on interpreting the exemplary character of the formulators of Pancasila. The dialogic component of the activity also appears important for developing students' understanding. Students were not simply required to select an answer from a card; they had to discuss their choices with peers, listen to alternative opinions, provide reasons, and connect their decisions with the character values represented in the learning material. Such interaction transforms character education from a process of receiving moral descriptions into an opportunity to articulate and examine reasons. Classroom approaches that combine meaningful content with critical dialogue can create conditions that support critical-thinking development in primary education (Jegstad et al., 2025). The present findings are consistent with this perspective because improvements in students' participation were accompanied by greater willingness to explain decisions and

relate them to character values.

The findings also reinforce the relevance of integrating character education into Pancasila and Citizenship Education. Character development in this subject can be supported when learning activities incorporate reflection, collaboration, engagement, and opportunities for students to elaborate on values rather than treating character as an additional component outside the academic learning process (Sarkadi et al., 2022). *Kartu Dilema Tokoh* operationalized this principle by connecting historical character values with situations that students could discuss and evaluate. The activity consequently created a bridge between knowledge about the formulators of Pancasila and students' consideration of how similar values might be expressed in everyday behavior.

The findings should not, however, be interpreted as evidence that a short classroom intervention permanently changed students' moral character or behavior outside school. The assessment primarily captured changes in learning outcomes and classroom processes during the research period. Understanding a value, explaining a reason, and making a decision in a classroom dilemma are important indicators of learning, but they do not automatically demonstrate stable moral dispositions or long-term behavioral transfer. This distinction is important because character education involves processes that extend beyond immediate academic achievement. The contribution of the present intervention is therefore more appropriately understood as strengthening students' opportunities to interpret, reason about, and apply character values within the learning context.

Integration of PBL and Kartu Dilema Tokoh as the Study's Contribution

The main contribution of this study lies in the instructional integration of PBL and *Kartu Dilema Tokoh*. PBL, dilemma-based discussion, character education, and dialogic learning have each received attention in previous educational research, but they do not necessarily provide an integrated instructional structure for teaching the characters of the formulators of Pancasila in Grade IV. The present study combines these elements by using dilemma cards as the initial problem stimulus, PBL as the inquiry structure, group discussion as the reasoning process, and reflection as the mechanism for connecting decisions with character values.

This integration addresses the gap identified in the introduction. Historical-character learning can remain dominated by factual recall when students are primarily asked to identify names, events, or biographical information. The present instructional design changes the nature of the learning task by asking students to use historical character values as a basis for examining contemporary situations. Students therefore encounter the character of the formulators of Pancasila not only as historical information but also as a source of considerations for making decisions in concrete situations. The use of culturally relevant learning media has previously been shown to support character development when students actively engage with the values represented in the learning material (Nurasiah et al., 2022). The present study contributes by placing such value-oriented content within a structured problem-solving sequence.

The iterative nature of classroom action research further demonstrates that the effectiveness of the instructional design depended on how the learning process was facilitated. The first cycle revealed difficulties in interpreting questions, completing LKPD tasks, distributing participation, articulating reasons, and connecting decisions with character values. These findings informed specific modifications in the second cycle, including clearer prompts, more explicit LKPD instructions, defined group roles,

opportunities for individual speaking, and additional teacher scaffolding. This process suggests that the instructional contribution is not simply the use of a particular card but the design of a learning sequence in which the stimulus, inquiry process, interaction, and reflection are mutually connected.

Theoretical Implications

The findings provide contextual support for a view of character-value learning as an active process of interpretation and reasoning. PBL theory emphasizes problems as meaningful starting points for inquiry, while dilemma-based learning provides situations in which learners must consider alternatives and reasons. Character education provides the value content that gives the discussion its normative direction. The present study brings these three dimensions together within Pancasila Education. The resulting learning process suggests that students can engage more deeply with character values when those values are embedded in problems that require explanation, choice, and reflection.

The study also contributes to understanding how Pancasila Education can move beyond knowledge transmission without abandoning historical content. The formulators of Pancasila remain the substantive focus of the lesson, but their characters are approached through situations that require students to interpret the relevance of those characteristics. This approach is consistent with evidence that meaningful subject content, dialogic interaction, and structured classroom activities can support higher-order thinking in primary education (Jegstad et al., 2025). Character education research similarly emphasizes the importance of integrating character development into subject learning rather than treating it as an isolated instructional objective (Sarkadi et al., 2022).

The theoretical implication should remain contextual rather than universal. The study does not establish a new learning theory or demonstrate that PBL assisted by *Kartu Dilema Tokoh* is universally superior to other approaches. Its contribution is empirical and instructional: it provides classroom-based evidence that an integrated problem-and-dilemma structure can be used to facilitate students' interpretation of character values in Pancasila Education. Broader theoretical claims would require replication across different schools, student populations, instructional conditions, and comparison designs.

Practical and Pedagogical Implications

The findings provide several implications for teachers of Pancasila Education at the elementary level. Character-related historical material can be presented through short, age-appropriate dilemmas that require students to identify a problem and consider alternative responses. The situations should remain sufficiently concrete for Grade IV students while preserving a clear connection with the character values being studied. The purpose of the cards is not to determine a single mechanically correct moral answer but to create a structured opportunity for students to explain their choices and connect them with relevant values. Teacher scaffolding is also important. The Cycle I findings showed that students did not automatically move from identifying a dilemma to explaining its connection with character values. Teachers therefore need to prepare guiding questions that progressively direct students from problem identification to choice, consequences, reasons, character interpretation, and everyday application. Clear LKPD instructions and defined group roles can reduce procedural confusion and provide more equitable opportunities for participation. Structured speaking opportunities are particularly useful for students who are less confident in expressing their reasoning.

The approach can also be incorporated into regular classroom assessment. Teachers may assess not only whether students select an appropriate answer but also whether they can identify the problem, explain their reasoning, consider consequences, connect the decision with a character value, and reflect on possible application in daily life. Such assessment provides a broader picture of students' understanding than factual recall alone. The emphasis on explanation and reflection is consistent with approaches to primary education that promote active reasoning and critical engagement with meaningful subject content (Jegstad et al., 2025).

Strengths and Limitations

A strength of the study is the use of both learning-outcome data and classroom-process observations. The learning assessments provided evidence of changes in students' achievement, while observations documented changes in participation, discussion, dilemma analysis, reasoning, collaboration, presentation, and reflection. This combination is appropriate for classroom action research because improvement can be examined not only through final scores but also through changes in the learning process. The two-cycle design also enabled the researcher to use findings from Cycle I to refine the intervention before Cycle II, which strengthened the reflective character of the action research process.

Several limitations should be considered when interpreting the findings. The study involved 25 students from one Grade IV classroom, limiting the transferability of the findings to other schools and student populations. The absence of a control or comparison group means that the observed improvement cannot be attributed exclusively to PBL or *Kartu Dilema Tokoh*, because maturation, repeated assessment, teacher support, familiarity with the material, and other classroom factors may also have contributed. The intervention was conducted over two cycles, so the study does not establish whether the observed learning gains would be maintained over a longer period. The study also focused on classroom understanding and observed learning behavior rather than measuring long-term behavioral enactment of Pancasila values outside the classroom.

The instruments underwent content validation through expert review, but the study did not employ psychometric validation procedures designed to establish construct validity or reliability in the manner commonly used in large-scale quantitative measurement studies. This limitation is particularly relevant if the assessment instruments are to be transferred beyond the original classroom context. Future research should therefore provide more extensive evidence regarding instrument quality and should consider using multiple sources of evidence when examining students' understanding and enactment of character values.

Conclusion

The study found that Problem-Based Learning (PBL) assisted by *Kartu Dilema Tokoh* improved Grade IV students' understanding of the characters of the formulators of Pancasila. Students' mean learning outcome increased from 67.28 in the pre-action stage to 78.40 in Cycle I and 88.00 in Cycle II, while classical mastery increased from 52% to 64% and finally 88%, exceeding the predetermined success criterion of 75%. Classroom observations also indicated more consistent participation, improved discussion, stronger reasoning, better consideration of consequences, and clearer connections between character values and everyday situations. These findings imply that integrating dilemma-based problem stimuli into PBL can support more active and meaningful character-value

learning in Pancasila Education. The study was limited by its small sample of 25 students from one classroom, the absence of a comparison group, the short two-cycle intervention, and the lack of evidence regarding long-term behavioral transfer. Future researchers should replicate the intervention across larger and more diverse school settings, employ comparative or longitudinal designs, strengthen instrument validation, and examine whether improvements in students' understanding are sustained and reflected in their everyday enactment of Pancasila values.

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