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BURSA Card Game: Deliberative Participation and Learning Outcomes in Pancasila Education

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Abstract

Purpose	:	This study examined BURSA (Baca, Urai, Runding, Sepakati, Ajukan Solusi), a printed card game with four rotating roles, to support deliberative participation and learning in Pancasila Education.
Method	:	This classroom action research followed the Kemmis and McTaggart model over two cycles in Grade X-C at a public senior high school in Semarang, Indonesia. Analyses included 35 students in Cycle 1 and 31 in Cycle 2. Data came from a six-indicator observation sheet, pretests and posttests, peer evaluations of the instructional materials, and a student questionnaire. Analyses used descriptive percentages, normalized gain, mastery rates, and the Wilcoxon signed-rank test.
Results	:	The proportion of students classified as active rose from 62.9% in Cycle 1 to 90.3% in Cycle 2. Cycle 1 scores were near the maximum, and the pretest–posttest difference was not statistically significant. In Cycle 2, scores increased significantly (Wilcoxon $p = 0.032$); class-level N-gain was 0.51, and mastery rose from 64.5% to 87.1%. Peer evaluators and students assessed the game favourably.
Conclusion	:	Participation and learning outcomes improved alongside BURSA implementation. Because the study involved one class without a comparison group, the findings do not establish a causal effect. The study offers a printable, role-rotating card-game structure for making deliberative participation observable and identifies practical needs concerning rule clarity, time management, and pretest design.

Keywords: card games; classroom action research; cooperative learning; deliberation; student engagement

1. Introduction

Pancasila Education not only equips students with knowledge of Pancasila but also encourages them to practise its values in everyday attitudes and behaviour (Anugrah & Rahmat, 2024; Putri et al., 2023). Educational institutions provide an important setting for this practice, as students learn to cooperate, respect their peers' opinions, and take responsibility (Sulianti et al., 2020). The fourth principle of Pancasila emphasises deliberation to reach consensus, wisdom in decision-making, and responsibility for collective decisions. These values cannot be learned through memorisation alone; students also need opportunities to speak, contribute, and participate in

decisions during group activities (Jairin et al., 2026). Pancasila Education should therefore help students understand deliberation and practise it.

Preliminary observations in Class X-C at a public senior high school in Semarang indicated that this goal had not yet been fully achieved. Lessons ran from 12:40 to 14:05, a period when students' concentration could decline. When the teacher explained material for more than 15 minutes, some students became drowsy, chatted with peers, or engaged in off-task activities. Group work during Problem-Based Learning did not ensure equal participation: some students relied on more dominant peers, and group decisions and work often came from one or two members rather than through deliberation involving the whole group. Individual responsibility was also uneven; across three task submissions, 10 of 36 students submitted late. These observations indicate that grouping students does not, by itself, ensure active participation by every member.

Unequal participation has also been documented in other settings. Observational evidence from social science lessons indicates that classroom discussion is distributed unevenly and occurs particularly often during small-group work (Teglbjærg, 2024). Studies of group discussion at other school levels have highlighted the importance of encouraging students to express their opinions and building their confidence to participate. They have also emphasised the teacher's role in guiding discussions and preparing activities carefully to support students' critical thinking and participation (Jairin et al., 2026; Sholihah & Amaliyah, 2022). Social loafing refers to the tendency to exert less effort in group settings and has been associated with classroom silence among college students (Li et al., 2025). One strategy proposed by the authors is to assign clear individual roles and responsibilities within group activities (Li et al., 2025). Although this evidence comes from higher education, it offers a relevant perspective for designing structured group work in secondary classrooms. Efforts to increase participation should therefore address the design of group work rather than simply urging students to be more active.

Student engagement is commonly understood as a multidimensional construct comprising behavioural, emotional, and cognitive dimensions (Wong & Liem, 2022). This study focuses specifically on observable behavioural engagement during deliberation: reading and understanding cards, analysing cause-and-effect relationships, giving reasons, negotiating, respecting other groups' opinions, and formulating a joint solution. Participation and learning outcomes are considered complementary aspects of learning: observation captures the deliberative process, whereas test scores indicate mastery of the content.

Educational games can provide structure for group work. A meta-analysis of gamification in learning reported positive effects on cognitive ($g = .49$), motivational ($g = .36$), and behavioural ($g = .25$) outcomes; the cognitive effect remained in methodologically rigorous studies, whereas the motivational and behavioural effects were less stable (Sailer & Homner, 2020). A systematic review and meta-analysis of digital games found that learning outcomes varied with game design characteristics and research quality (Clark et al., 2016); however, these findings concern digital games and cannot be directly generalised to physical card games. In civic education, a systematic review of 36 empirical studies reported generally positive outcomes for game-based approaches across learning, cognition, emotion, motivation, and social experience, while noting that studies often do not identify which game attributes produced the benefits (Aura et al., 2022). Role-play games have been used to engage high school students with civic content (Rivers & Bertoli, 2024). A

survey of Indonesian university students found positive perceptions of digital games as learning media in civic education, particularly regarding learning interest and material comprehension, while also identifying risks of gaming addiction and reduced learning focus (Masyitoh et al., 2026). Deliberative dialogue has been associated with improved civic learning outcomes among secondary students compared with a control group (Odutayo, 2023). Cooperative learning requires positive interdependence and individual accountability to support shared learning goals (Johnson & Johnson, 2018). In physical education, perceived classroom cooperation has been positively associated with academic performance, as have positive emotions (León et al., 2023). High school students have also reported communication and complementary teamwork while playing cooperative board games (Sousa et al., 2023). In Pancasila and Civic Education, classroom action research has reported improved learning outcomes through small-group discussion in Grade VI of elementary school (Rusmiati, 2022), increased understanding of Pancasila values after the use of quartet cards in elementary school (Hardhita, 2022), and improved learning outcomes after Kahoot-based (digital) game-based learning in Grade X of senior high school (Ramadhan, 2026). However, game-based approaches do not produce uniform effects across outcomes (Sailer & Homner, 2020). Based on the authors' literature search, studies of physical group card games with rotating roles specifically designed to practise deliberative participation at senior high school level appear limited. Existing evidence more often concerns digital games or student perceptions, and tends to report learning outcomes rather than the deliberative process within groups.

To address this gap, the BURSA model (Baca, Urai, Runding, Sepakati, Ajukan Solusi; Read, Analyse, Negotiate, Agree, Propose a Solution) was developed. It is a printed educational card game designed for groups of up to four students, with four roles that rotate each round: Negotiator (Juru Runding), Pair Analyst (Analis Pasangan), Card Keeper (Bendahara Kartu), and Agreement Recorder (Pencatat Kesepakatan). When fewer than four students are present, role allocation is adjusted to the group size. Its five stages reflect elements of deliberation: Read and Analyse support consideration of information; Negotiate requires students to express and listen to opinions; Agree involves joint decision-making; and Propose a Solution emphasises responsibility for the group's decision. Role rotation is intended to make each member's contribution more visible and reduce the likelihood that some members simply rely on their peers. All activities are completed in class, without additional assignments.

BURSA was used to teach the topic of compliance with the law in Indonesia. This topic includes contextual problems that require students to analyse relationships among actions, consequences, rules, and solutions. In Cycle 1, cases involving rights violations and neglected obligations required students to connect actions with consequences. In Cycle 2, cases involving legislation required students to analyse the hierarchy of regulations and identify the applicable legal principle (Law No. 12 of 2011, as amended).

The contribution of this study is twofold. Theoretically, it proposes and illustrates a design logic in which each stage of a card game is mapped to an observable deliberative behaviour: rotating roles are intended to create individual accountability, accountability is intended to make behaviours such as giving reasons and negotiating visible, and these behaviours are intended to support learning of the content. Previous reviews of gameful civic education note that the specific game attributes responsible for benefits are rarely identified (Aura et al., 2022); this study makes the

proposed link between each stage and behaviour explicit (Table 1) and examines it descriptively. Practically, it offers teachers a low-cost, fully specified card game, together with the observation sheet, timing, and adjustments for incomplete groups, that can be replicated in a regular classroom.

The study aimed to (1) describe the implementation of BURSA and changes in deliberative participation among Class X-C students across two cycles; (2) examine pretest–posttest changes in learning outcomes separately for each cycle because the pretest difficulty differed; and (3) document peer validators' and students' assessments of the game as supporting evidence of its practical feasibility. Because the study involved one class and no comparison group, the findings are interpreted as changes observed alongside implementation, not as evidence of causal effectiveness or as grounds for generalisation.

2. Method

Design, setting, and subjects

This classroom action research was conducted by a teacher in her own class (Mertler, 2019), following the Kemmis and McTaggart model as applied by Juniati (2020). Each of the two cycles included planning, action, observation, and reflection; the reflection after Cycle 1 informed the planning of Cycle 2. Participation data were analysed descriptively and supplemented by qualitative notes, while learning outcomes were analysed quantitatively. The study took place at a public senior high school in Semarang during the 2026/2027 academic year in Pancasila Education lessons scheduled from 12:40 to 14:05 (two lesson periods). Cycle 1, conducted on 29 September 2026, covered rights violations and neglected obligations; Cycle 2, conducted on 6 October 2026, covered legislation. The class comprised 36 students; 35 attended Cycle 1 and 31 attended Cycle 2. Students who were absent were not replaced and were excluded from that cycle's analysis. Cycle-specific results use each cycle's own attendance (35 and 31); the primary comparison of individual participation across cycles uses only the 31 students observed in both cycles. The class was organised into nine heterogeneous groups in each cycle, formed from the scores of an earlier class test so that each group mixed higher-, medium-, and lower-scoring students; the same grouping was used in both cycles. In Cycle 1, eight groups had four students and one group had three students ($8 \times 4 + 1 \times 3 = 35$). In Cycle 2, five groups had four students, three groups had three students, and one group had two students ($5 \times 4 + 3 \times 3 + 1 \times 2 = 31$). The research was carried out with the knowledge and permission of the cooperating teacher and the school, and the students were informed about the research activities.

The BURSA model and action procedure

BURSA is a printed group card game built around matching action and consequence cards. The Cycle 2 set contained 36 cards forming 18 action–consequence pairs on legislation cases; Cycle 1 used familiar cases involving rights violations and neglected obligations. In Cycle 2, each group received two action cards and two consequence cards; in Cycle 1, cards were distributed at random, so groups held different combinations (for example, two action and two consequence cards, or one action and three consequence cards). In both cycles, exchanges were needed to complete correct pairs. The intended group size was four students, with four roles—Negotiator, Pair Analyst, Card Keeper, and Agreement Recorder—rotated each round so that every member held a different role in successive rounds. Groups displayed their action cards on an exchange board; Negotiators visited

other groups and reserved or exchanged cards only when both groups agreed and could justify the decision. Each completed pair that matched the teacher's answer key earned 10 points. Each group also completed a deliberation ballot (voting card) naming the group it judged to have negotiated well in line with the fourth principle of Pancasila, together with its reasons, and submitted it with the team reflection ticket when presenting its solution; the group that received the most votes on these ballots earned 5 bonus points, as the vote result was taken as an indication that the group had negotiated well with other groups. The group with the highest total game score received a reward in Cycle 1; no reward was given in Cycle 2. Game points were separate from the six-indicator observation score used to analyse student participation.

Because absent students were not replaced, group sizes varied while the class remained organised into nine groups: eight groups of four and one group of three in Cycle 1; five groups of four, three groups of three, and one group of two in Cycle 2. Role allocation was adjusted to the number of students present: the Card Keeper role could be omitted, and when a Negotiator visited other groups without an Agreement Recorder, the Negotiator recorded the outcomes. Student-level observation scores were not adjusted for group size. The card design was inspired by the colour-matching format of the commercial game UNO; the card content, action–consequence pairings, role rotation, and game stages were developed by the authors. Figure 1 presents an example card, and Table 1 links each game stage to the deliberative participation it is intended to elicit.

Table 1. BURSA stages and the deliberative participation they are intended to elicit (researchers' design)

Stage	**Student activity**	**Deliberation participation required**
Read (*Baca*)	Read the card or case before discussing	Every member has initial understanding and does not depend on particular members
Analyse (*Urai*)	Analyse the card content and relationships among cards	Give ideas and reasons; consider opinions rationally
Negotiate (*Runding*)	Negotiate with other groups to exchange or complete cards	Express opinions, listen, and respect peers' opinions
Agree (*Sepakati*)	Determine card pairs and record the agreement	Take part in agreeing on a joint decision
Propose a Solution (*Ajukan Solusi*)	Present the group's solution or conclusion	Carry out group responsibility



Figure 1. Example of a BURSA action card used in Cycle 2 (Card 8: "The President issues a Government Regulation in Lieu of Law (Perppu) without a compelling emergency")

Each lesson began with an opening question, a pretest, and an explanation of the rules and roles. In Cycle 2, students first received a 10-minute explanation of the hierarchy of regulations and the principles of lex superior, lex specialis, and lex posterior. Groups displayed two action cards on an exchange board while keeping their consequence cards hidden. Negotiators visited other groups' boards and negotiated exchanges. An exchange was valid only when both groups agreed and could justify the decision. Before each subsequent round, a 30-second pause allowed groups to re-check whether their agreed pairs were logical and to correct them. After the final round, every group presented its pair, reasoning, and proposed solution (up to one minute per group), completed a team reflection ticket and a deliberation ballot, and the lesson concluded with a shared summary, posttest, and reflection. Cycle 1 comprised three rounds, each consisting of two minutes of discussion, three minutes of moving between groups to find cards to exchange, two minutes of renewed discussion, and three minutes of moving and exchanging cards. Following reflection on Cycle 1, the rules were clarified, card exchanges were simplified, and Cycle 2 used fixed timings for each round: two minutes for discussion, five minutes for moving between groups and reserving cards, and two minutes for exchanges. Cycle 2 comprised two rounds. The full lesson plan is available from the authors.

Instruments

Five instruments were used: (1) a teacher-completed observation sheet with six binary indicators (Yes = 1; No = 0): reading cards, analysing cause-and-effect relationships, giving reasons, negotiating, respecting other groups' opinions, and formulating a solution. The indicators were derived from the mapping of game stages to deliberative behaviours in Table 1. The same sheet, the same observer, and the same scoring rules were used in both cycles so that observations were comparable, and observations were read alongside reflection tickets and field notes. Students who met at least five of the six indicators (83.3%; a researcher-defined threshold that tolerates one missed indicator) were classified as active. As a sensitivity check, requiring all six indicators gave 57.1% (20 of 35) in Cycle 1 and 90.3% (28 of 31) in Cycle 2, the same pattern as the main criterion; (2) written pretests and posttests using multiple-choice and matching items, with nine items in Cycle 1 and 10 in Cycle 2, scored on a 0–100 scale; (3) a media evaluation sheet completed by two peer validators, using a 1–4 scale across five aspects: alignment with objectives, clarity of rules, design, ease of use,

and support for discussion and deliberation; (4) team reflection tickets and a teacher reflection sheet; and (5) a six-item student questionnaire using a 1–4 scale, administered at the end of Cycle 2. The pretest and posttest items were reviewed by the cooperating teacher, who raised no objection regarding their alignment with the learning objectives; however, no statistical validity or reliability testing and no inter-rater check was conducted (see Limitations).

Data analysis and success indicators

The proportion of active students was compared with a target of 80%. The class-wide mastery rate was defined as the proportion of students scoring at least 80, the minimum mastery criterion. Learning gains were analysed using normalized gain (N-gain; Coletta & Steinert, 2020), calculated as $g = (\text{posttest} - \text{pretest}) / (100 - \text{pretest})$ and classified as high ($g \geq 0.70$), medium ($0.30 \leq g < 0.70$), or low ($g < 0.30$). Class-level N-gain was also calculated from the unrounded mean scores—the mean gain divided by the mean remaining headroom (100 minus the mean pretest)—because individual N-gain cannot be calculated when the pretest score is 100. Class-level N-gain reflects the size of the mean gain relative to available headroom, whereas the Wilcoxon test reflects the consistency of direction of paired changes, so the two can differ. Pretest–posttest differences were assessed using the Wilcoxon signed-rank test as the primary analysis and the paired-samples t-test as a supporting analysis, with significance set at 0.05 (Sugiyono, 2024). Validator and questionnaire results are reported as means and percentages of the maximum score; 81.25–100% was classified as very good. Observation findings were considered alongside reflection tickets, field notes, and test scores. The predefined success criteria were at least 80% active students, a class-wide mastery rate of at least 80%, and a higher posttest mean with a medium or high class-level N-gain.

3. Results

Deliberation participation

As shown in Table 2, the target of 80% active students was not met in Cycle 1 but was met in Cycle 2, and the mean observation score rose from 5.06 to 5.74. Among the 31 students observed in both cycles, 10 scores increased, 21 remained unchanged, and none decreased; this is the primary comparison across cycles, whereas the percentages in Table 2 use each cycle's own number of students (35 and 31). Reading cards, respecting other groups' opinions, and formulating a solution were met by all students in Cycle 1, so the increase came from analysing cause and effect, giving reasons, and negotiating.

Table 2. Number and percentage of students meeting each deliberative participation indicator

Indicator	Cycle 1 (n = 35)	Cycle 2 (n = 31)
Reading and understanding the cards	35 (100%)	31 (100%)
Analysing cause-and-effect relationships	21 (60.0%)	28 (90.3%)
Giving reasons in discussion	23 (65.7%)	28 (90.3%)
Negotiating with other groups	28 (80.0%)	29 (93.5%)
Respecting other groups' opinions	35 (100%)	31 (100%)
Formulating a solution through deliberation	35 (100%)	31 (100%)
Classified as active (score ≥ 5 of 6)	**22 (62.9%)**	**28 (90.3%)**

The teacher's Cycle 1 reflection identified several procedural issues that may have contributed to lower scores on some indicators: groups received different cards, which prolonged negotiation; some stages of the activity were unclear during the first implementation; and the class was relatively noisy. All nine teams identified deliberation and cooperation as values practised through the game, and their reflections noted the importance of respecting others' opinions and cooperating to match card pairs. In Cycle 2, the teacher reported that students understood the process more quickly and carried out their roles more readily. Three students remained below the active-participation threshold in Cycle 2; all three did not meet the indicators for analysing cause-and-effect relationships or giving reasons.

Learning outcomes

Table 3 summarises learning outcomes in both cycles. In Cycle 1, 29 of 35 students scored 100 on the pretest (mean 95.2), and the pretest–posttest difference was not statistically significant: only eight students changed score (six increased, two decreased). In Cycle 2, the mean score increased from 82.9 to 91.6, the Wilcoxon test indicated a statistically significant difference, and the class-wide mastery rate rose from 64.5% to 87.1%. The score differences were non-normal (Shapiro–Wilk $p = 0.012$), so the Wilcoxon test was the primary reference. Among the 20 students with a pretest score below 100, the mean rose from 73.5 to 92.0, with a mean individual N-gain of 0.68 (medium).

Table 3. Learning outcomes in both cycles

Indicator	Cycle 1 (n = 35)	Cycle 2 (n = 31)
Pretest mean	95.2	82.9
Posttest mean	99.0	91.6
Mean difference	3.8	8.7
Met mastery criterion at pretest (minimum score 80)	30 (85.7%)	20 (64.5%)
Met mastery criterion at posttest (minimum score 80)	35 (100%)	27 (87.1%)
Scored 100 at pretest	29 (82.9%)	11 (35.5%)
Class N-Gain	0.80 (high)	0.51 (medium)
Wilcoxon test	$W = 6$; $p = 0.090$	$W = 42$; $p = 0.032$
Paired-samples t-test	$t(34) = 1.71$; $p = 0.097$	$t(30) = 2.32$; $p = 0.028$

Table 4 presents individual gains in Cycle 2. Of the 20 students for whom individual N-gain could be calculated, 12 (60%) were in the high category, three (15%) in the medium category, and five (25%) in the low category. Scores increased for 16 students, remained unchanged for 12, and decreased for three, all of whom had scored 100 at pretest. Four students did not meet the mastery criterion at posttest: two had also been below it at pretest, while two had declined from the maximum score.

Table 4. Individual N-gain categories and test-score changes in Cycle 2

Measure	Category	Number of students (%)
N-Gain category (n = 20)	High	12 (60%)
	Medium	3 (15%)
	Low	5 (25%)
Score change (n = 31)	Increased	16 (51.6%)
	Unchanged	12 (38.7%)
	Decreased	3 (9.7%)

Instructional-material evaluation and student perceptions

The two peer validators' assessments are presented in Table 5. Both rated the game as very good in both cycles, and the overall mean increased from 3.5 in Cycle 1 to 3.9 in Cycle 2; ease of use showed the largest improvement. In Cycle 1, Validator 1 considered the game feasible with revisions and highlighted the rules and negotiation stage. Validator 2 considered the rules clear from the outset but recommended greater emphasis on preparation and time management. In Cycle 2, Validator 2 recommended implementing the stages sequentially and allowing sufficient time for deliberation. The teacher's reflection similarly noted that decision-making remained slow in several groups because members needed time to reconcile their views before exchanging cards.

Table 5. Peer validators' evaluation of the BURSA game (scale 1–4)

Aspect	V1 C1	V1 C2	V2 C1	V2 C2	Mean C1	Mean C2
Suitability to learning objectives	4	4	3	4	3.5	4.0
Clarity of game rules	3	4	4	4	3.5	4.0
Attractiveness of media design	4	4	4	4	4.0	4.0
Ease of use	3	4	3	4	3.0	4.0
Improving discussion and deliberation	4	4	3	3	3.5	3.5
Mean	**3.6**	**4.0**	**3.4**	**3.8**	**3.5**	**3.9**

Note. V1 = Validator 1, V2 = Validator 2, C1 = Cycle 1, C2 = Cycle 2.

Student perceptions in Cycle 2 are summarised in Table 6. All responses were agree or strongly agree, and the overall mean was 3.81 out of 4 (95.2%). The highest-rated item concerned respecting other groups' opinions (3.97) and the lowest concerned giving reasons when selecting card pairs (3.68).

Table 6. Student perceptions of BURSA in Cycle 2 (n = 31; scale 1–4)

Item	Agree (3)	Strongly agree (4)	Mean	Score (%)
Q1. Helped understand the relationships among legislation	7	24	3.77	94.4
Q2. More active in discussion	8	23	3.74	93.5
Q3. Able to give reasons when choosing card pairs	10	21	3.68	91.9
Q4. Learned to respect other groups' opinions	1	30	3.97	99.2
Q5. Lesson was more interesting	3	28	3.90	97.6
Q6. Able to give solutions to problems	7	24	3.77	94.4
Overall	**36**	**150**	**3.81**	**95.2**

Participation and learning outcomes

In Cycle 2, the 28 students classified as active had a mean posttest score of 92.5, compared with 83.3 among the three students classified as inactive. Three of the four students who did not meet the mastery criterion at posttest had nevertheless met all participation indicators.

4. Discussion

Participation: structure secured presence, reasoning lagged

The pattern in Table 2 suggests that the game structure more readily supported observable participation and cooperation than reasoning. It is useful to distinguish procedural behaviours from quality of reasoning. Reading cards, respecting others' opinions, and formulating a solution are procedural or role-bound: the rules of the game require them, so a student can show them without engaging deeply with the content, which may explain why all students met them in Cycle 1. Analysing cause and effect, giving reasons, and negotiating require cognitive demand and a willingness to speak, and these were the indicators that changed. Even then, a Yes/No indicator records that a student gave a reason, not how sound the reason was. Rotating roles gave each member a defined responsibility, and behaviours such as reading cards, listening, and contributing to a group decision were commonly observed. This pattern is consistent with the principle of individual accountability in cooperative learning (Johnson & Johnson, 2018) and with the recommendation, drawn from research with college students, to assign clear group roles to address social loafing (Li et al., 2025). By contrast, analysing cause-and-effect relationships and giving reasons require both cognitive effort and a willingness to speak; assigning roles alone may not be sufficient to develop these behaviours. This may help explain why these indicators were lower in Cycle 1. Evidence about role distribution also warrants caution. A study of group-work roles in introductory physics laboratories found no significant differences in critical-thinking outcomes across role-distribution strategies, while attitudinal effects varied by strategy (Feinleib et al., 2026). These findings suggest that role rotation alone should not be assumed to improve participation in every learning context. The procedural issues recorded in the teacher's reflection are also consistent with validators' comments that the rules and negotiation stage needed clarification (Table 5).

The changes introduced in Cycle 2 addressed these procedural issues: the exchange mechanism was simplified, instructions were clarified, and time limits were set for each round. According to the teacher's reflection, students then understood the sequence more quickly and carried out their roles more readily, allowing greater attention to be directed towards analysis and deliberation. This interpretation remains tentative. First, there was no comparison class, so the increase cannot be separated from students' growing familiarity with the game. Second, the topic and number of rounds differed between cycles. Third, the same teacher observed participation using a binary scale, leaving room for observer subjectivity. The findings are therefore better interpreted as procedural refinements occurring alongside increased participation, rather than as proof that the refinements caused the increase.

These findings also highlight the multidimensional nature of engagement (Wong & Liem, 2022). This study measured observable behavioural engagement only, and the Yes/No scale could not distinguish a student who spoke once from one who contributed repeatedly. The quality of deliberation—for example, whether students genuinely considered opposing views—was captured only indirectly through team reflection tickets. The fact that all nine teams in Cycle 1 associated the game with deliberation suggests that students recognised its connection with the fourth principle of Pancasila, but it does not demonstrate a change in attitudes. The three students who remained below the active-participation threshold in Cycle 2 may benefit from preparation before the game, such as a worked example of card matching and a short practice round, as noted in the teacher's reflection.

Learning outcomes: ceiling effect and uneven benefit

Learning outcomes should be interpreted differently across the two cycles. In Cycle 1, the pretest mean was already close to the maximum (29 of 35 students scored 100). The 100% class-wide mastery rate and the high class-level N-gain (0.80) may appear encouraging, but they should not be read as strong evidence of improvement. The class-level N-gain is the ratio of the mean gain (3.8 points) to the mean remaining headroom (4.8 points), so a small absolute gain can yield a high ratio when headroom is tiny; the Wilcoxon test, which depends on the direction of paired changes, was not significant because only eight students changed (six up, two down) and most differences were ties. The two results are therefore not contradictory but describe a ceiling effect: the test was too easy for most students and did not discriminate initial performance. A practical lesson is to review item difficulty before administering a pretest.

The Cycle 2 test left more room to detect change because its pretest mean was lower. Its class-level N-gain (0.51) was lower than the mean individual N-gain (0.68) because 11 students already scored 100 at pretest and the latter excludes them. The significant Wilcoxon result ($p = 0.032$) accompanies a modest mean gain (8.7 points) and should be read with caution: gains varied (Table 4), the test was more discriminating than in Cycle 1, and a 10-minute teacher explanation preceded the game. Three students' scores decreased, all from 100; their reasons are unknown, and carelessness, fatigue in an afternoon lesson, or difficulty with particular items are possible but unconfirmed explanations.

The Cycle 2 improvement is consistent with research on learning games and learning outcomes (Sailer & Homner, 2020; Hardhita, 2022; Ramadhan, 2026), deliberative dialogue and civic learning (Odutayo, 2023), and cooperative learning (León et al., 2023). A topic such as legislation,

which contains many terms and a hierarchy of rules, may lend itself to card matching and joint decisions because students must use relevant concepts to justify their choices to other groups. However, the contribution of BURSA cannot be isolated from the other elements of Cycle 2. The teacher explained the material for 10 minutes after the pretest and before the game, so this explanation may also have contributed to the score increase. A single-group design without a comparison class cannot distinguish the contribution of the explanation from that of the game. Since game elements can affect different outcomes in different ways (Sailer & Homner, 2020), the use of BURSA over multiple meetings should also be monitored and varied.

Evaluation of the game, student perceptions, and the participation–outcome relationship

The validators' differing ratings provide useful information. The rating for support for discussion and deliberation did not change because Validator 2 retained a score of 3 in Cycle 2; this is consistent with the teacher's reflection that decisions in some groups remained slow. With only two validators, these ratings should be interpreted as a practical review of the game in this classroom, not as broad expert validation. Questionnaire responses also aligned with the observation data: respect for others' opinions received the highest rating, matching the observation that all students met this indicator from Cycle 1, while giving reasons received the lowest rating and was one of the slower indicators to develop. This convergence offers some support for the interpretation, but the questionnaire was self-reported immediately after the activity and contained no negative responses. Responses may therefore have been influenced by a desire to please the teacher and are treated as supplementary evidence. Research on civic game-based learning has similarly reported positive student perceptions alongside concerns about distraction (Masyitoh et al., 2026), underscoring the importance of a clear pedagogical purpose. The three students classified as inactive also scored below the class mean on the questionnaire, although this descriptive pattern should be interpreted cautiously.

Participation and learning outcomes represent different aspects of learning: observation captures the process, whereas test scores indicate content mastery. The relationship between them remains uncertain. The 9.2-point difference between the posttest means of active and inactive students is descriptively consistent with a possible association between participation and achievement, but only three students were classified as inactive. This small subgroup does not support a firm conclusion. Moreover, three of the four students who did not meet the mastery criterion at posttest had met all participation indicators, and two of them had declined from a pretest score of 100. Participation in the game, which the indicators measure, therefore does not equal mastery of the content, and the study has no item-level or interview evidence to explain these cases. The indicators capture whether students engaged in the activity, not whether they understood the legal principles being practised. Deliberative activities should be accompanied by explicit discussion of the relevant concepts and by assessment items that can distinguish levels of understanding. BURSA is best considered a complement to, rather than a replacement for, teacher explanation.

Implications and limitations

A review of gameful civic education notes that studies often fail to identify which specific game attributes produce benefits (Aura et al., 2022). By linking each BURSA stage to the deliberative behaviour it is intended to elicit (Table 1) and observing those behaviours separately, this study

provides a more specific account of the process the game was designed to support. Three practical implications follow for Pancasila Education teachers. First, rotating roles can clarify responsibilities, but reasoning should be modelled and practised through examples before the game. Second, clear rules and time management are important if the activity is to support deliberation rather than simply create an energetic classroom; validators recommended staged implementation with sufficient time, and two lesson periods may be insufficient for some classes. Third, pretest items should be reviewed for difficulty so that score changes can be interpreted meaningfully.

Several limitations should be acknowledged. The active-participation threshold was set by the researcher, and observation was conducted by a single teacher-researcher who also taught the lesson, which leaves room for observer bias; no second observer or inter-rater reliability check was possible. The binary indicators could not capture the frequency or quality of contributions. The test items were reviewed only informally by the cooperating teacher and had not undergone statistical validity and reliability testing, and the Cycle 1 test was too easy. The number of students analysed differed between cycles (35 and 31). A reward was offered only in Cycle 1, whereas Cycle 2 had no reward; therefore, incentives may have contributed to the difference between cycles, although participation was higher in Cycle 2 without a reward. The study also involved one class and no comparison group, and the topic, number of rounds, and teacher explanation differed between cycles. The findings are not intended to be generalised, and implementation in other classes should be adapted to students' characteristics, group size, topic, and available time.

5. Conclusion

In Class X-C, implementation of BURSA coincided with an increase in the proportion of students meeting the active-participation threshold, from 62.9% in Cycle 1 to 90.3% in Cycle 2, mainly in analysing cause and effect, giving reasons, and negotiating. Learning outcomes improved significantly on the legislation topic in Cycle 2, but Cycle 1 results cannot be read as improvement because of a ceiling effect, and the teacher's explanation in Cycle 2 may have contributed. Peer validators and students rated the game favourably. Because there was no comparison class, the findings suggest practical feasibility, not causal effectiveness. Future research should include a comparison class, items of established difficulty and reliability, independent observers with graded rating scales, and interviews.

6. References

Anugrah, A., & Rahmat, R. (2024). Pendidikan karakter dalam perspektif kurikulum Pendidikan Pancasila dan Kewarganegaraan (PPKn) [Character education in the perspective of the Pancasila and Civic Education curriculum]. *Jurnal Pendidikan dan Pembelajaran Indonesia (JPPI), 4*(1), 22–34. https://doi.org/10.53299/jppi.v4i1.403

Aura, I., Hassan, L., & Hamari, J. (2022). Gameful civic education: A systematic literature review of empirical research. In M. Bujić, J. Koivisto, & J. Hamari (Eds.), *Proceedings of the 6th International GamiFIN Conference 2022 (GamiFIN 2022)* (CEUR Workshop Proceedings, Vol. 3147, pp. 1–10). CEUR-WS. https://ceur-ws.org/Vol-3147/paper1.pdf

Clark, D. B., Tanner-Smith, E. E., & Killingsworth, S. S. (2016). Digital games, design, and learning: A systematic review and meta-analysis. *Review of Educational Research, 86*(1), 79–122. https://doi.org/10.3102/0034654315582065

Coletta, V. P., & Steinert, J. J. (2020). Why normalized gain should continue to be used in analyzing preinstruction and postinstruction scores on concept inventories. *Physical Review Physics Education Research, 16*(1), Article 010108. https://doi.org/10.1103/PhysRevPhysEducRes.16.010108

Feinleib, J., Dew, M., & Holmes, N. G. (2026). Share, rotate, split: The effects of group work role distributions on student outcomes. *Physical Review Physics Education Research, 22*(1), Article 010132. https://doi.org/10.1103/1n3c-v2fj

Hardhita, R. S. (2022). Penggunaan media permainan kartu kuartet Pancasila pada mata pelajaran PPKn untuk meningkatkan pemahaman siswa tentang penerapan nilai Pancasila dalam kehidupan sehari-hari [The use of Pancasila quartet card games in PPKn to improve students' understanding of applying Pancasila values in daily life]. *EduStream: Jurnal Pendidikan Dasar, 6*(2), 120–127. https://doi.org/10.26740/eds.v6n2.p120-127

Jairin, J., Pratomo, W., Wijayanti, D., & Chairiyah, C. (2026). Pembentukan sikap demokratis siswa melalui internalisasi nilai sila keempat Pancasila dalam kegiatan diskusi kelompok di kelas V SDN 02 Kota Bima, Nusa Tenggara Barat [Forming students' democratic attitudes through internalising the fourth principle of Pancasila in group discussion in Grade V of SDN 02 Bima]. *Jurnal PEKAN: Jurnal Pendidikan Kewarganegaraan, 11*(1), 57–65. https://doi.org/10.31932/jpk.v11i1.6444

Johnson, D. W., & Johnson, R. T. (2018). Cooperative learning: The foundation for active learning. In S. M. C. Brito (Ed.), *Active learning: Beyond the future*. IntechOpen. https://doi.org/10.5772/intechopen.81086

Juniati. (2020). Penerapan model paradigma pedagogi reflektif untuk meningkatkan hasil belajar PPKN siswa di SD Negeri Kotabumi Kota Cilegon [Applying the reflective pedagogy paradigm to improve students' PPKn learning outcomes at SD Negeri Kotabumi, Cilegon]. *J-KIP (Jurnal Keguruan dan Ilmu Pendidikan), 1*(2), 123–128. https://doi.org/10.25157/j-kip.v1i2.10556

León, B., Fernandez-Rio, J., Rivera-Pérez, S., & Iglesias, D. (2023). Cooperative learning, emotions, and academic performance in physical education: A serial multiple mediation model. *Psicología Educativa, 29*(1), 75–82. https://doi.org/10.5093/psed2023a2

Li, S., Zhou, H., & Zheng, Y. (2025). The impact of social loafing on college students' classroom silence: A moderated mediation model. *Frontiers in Psychology, 16*, Article 1682073. https://doi.org/10.3389/fpsyg.2025.1682073

Masyitoh, I. S., Wiratomo, G. H., Wahono, M., Mazid, S., & Munawaroh, E. (2026). Student perceptions of game-based learning in civic education: A Technology Acceptance Model (TAM) approach. *Jurnal Civics: Media Kajian Kewarganegaraan, 23*(2), 490–504. https://doi.org/10.21831/jc.v23i2.96527

Mertler, C. A. (2019). *Action research: Improving schools and empowering educators* (6th ed.). SAGE Publications.

Odutayo, A. O. (2023). Deliberative dialogue as a viable instructional method for civic learning outcomes. *Studies in Learning and Teaching, 4*(2), 319–328. https://doi.org/10.46627/silet.v4i2.233

Putri, M. F. J. L., Putriani, F., Santika, H., Mudhoffar, K. N., & Putri, N. G. A. (2023). Peran Pendidikan Pancasila dalam membentuk karakter peserta didik di sekolah [The role of Pancasila Education in shaping students' character in schools]. *Jurnal Kewarganegaraan, 7*(2), 1983–1988. https://doi.org/10.31316/jk.v7i2.5576

Ramadhan, S. M. (2026). Upaya meningkatkan hasil belajar peserta didik pada pelajaran Pendidikan Pancasila menggunakan model pembelajaran game based learning berbasis Kahoot di kelas X SMA Negeri 10 Depok [Efforts to improve students' learning outcomes in Pancasila Education using Kahoot-based game-based learning in Grade X of SMA Negeri 10 Depok]. *Pancasila and Civics Education Journal, 5*(1), 113–123.

Rivers, S. E., & Bertoli, M. C. (2024). Using games to ignite teens' civic and social and emotional learning. *Frontiers in Education, 9*, Article 1322721. https://doi.org/10.3389/feduc.2024.1322721

Rusmiati, N. M. (2022). Upaya meningkatkan prestasi belajar PPKn siswa kelas VI melalui metode diskusi kelompok kecil [Efforts to improve Grade VI students' PPKn achievement through small-group discussion]. *Jurnal Penelitian dan Pengembangan Pendidikan, 6*(1), 36–42. https://doi.org/10.23887/jppp.v6i1.45486

Sailer, M., & Homner, L. (2020). The gamification of learning: A meta-analysis. *Educational Psychology Review, 32*(1), 77–112. https://doi.org/10.1007/s10648-019-09498-w

Sholihah, M., & Amaliyah, N. (2022). Peran guru dalam menerapkan metode diskusi kelompok untuk meningkatkan keterampilan berpikir kritis siswa kelas V sekolah dasar [The teacher's role in applying group discussion to improve Grade V students' critical-thinking skills]. *Jurnal Cakrawala Pendas, 8*(3), 898–905. https://doi.org/10.31949/jcp.v8i3.2826

Sousa, M., Sousa, C., & Luz, F. (2023). The novelty of collaboration: High school students learning and enjoyment perceptions when playing cooperative modern board games. In *Proceedings of the 17th European Conference on Games Based Learning* (pp. 632–642). https://doi.org/10.34190/ecgbl.17.1.1461

Sugiyono. (2024). *Metode penelitian kuantitatif, kualitatif, dan R&D* [Quantitative, qualitative, and R&D research methods]. Alfabeta.

Sulianti, A., Efendi, Y., & Sa'diyah, H. (2020). Penerapan nilai-nilai Pancasila dalam lembaga pendidikan [Application of Pancasila values in educational institutions]. *JPK: Jurnal Pancasila dan Kewarganegaraan, 5*(1), 54–65. https://doi.org/10.24269/jpk.v5i1.1910

Teglbjærg, J. H. (2024). Contexts and prevalence of classroom discussion in Nordic social science teaching: A large N observational study. *The Journal of Social Studies Research, 48*(2), 114–131. https://doi.org/10.1177/23522798231223666

Undang-Undang Republik Indonesia Nomor 12 Tahun 2011 tentang Pembentukan Peraturan Perundang-undangan [Law of the Republic of Indonesia No. 12 of 2011 on the Formation of Legislation], sebagaimana telah diubah dengan Undang-Undang Nomor 15 Tahun 2019 dan Undang-Undang Nomor 13 Tahun 2022.

Wong, Z. Y., & Liem, G. A. D. (2022). Student engagement: Current state of the construct, conceptual refinement, and future research directions. *Educational Psychology Review, 34*, 107–138. https://doi.org/10.1007/s10648-021-09628-3