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DEVELOPMENT OF PELITA LIMA SIMBOBOX ROLE-PLAYING MEDIA TO IMPROVE PRIMARY STUDENT' CIVIC SKILLS IN PANCASILA VALUES

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Abstract: Civic education in primary schools is still frequently delivered through lecturing, PowerPoint slides, and textbooks, leaving students with limited concrete learning experiences and difficulty applying Pancasila values in daily life. This study aimed to analyze learning needs, design, develop, and implement the Pelita Lima Simbox learning medium, a role-playing-based instructional tool intended to improve students' civic skills in practicing Pancasila values. The study used the Research and Development (R&D) method with the ADDIE model, comprising Analysis, Design, Development, Implementation, and Evaluation. The subjects were 19 third-grade students of SDN 5 Tilongkabila, together with material, media, language, and user experts. The developed product integrates a four-sided exploding box displaying the Pancasila symbols with Action Cards for role-playing activities and a Puzzila (Pancasila puzzle) for group formation. Expert validation yielded an average feasibility score of 91.33%, categorized as very feasible, across the aspects of content, visual design, language, and usability. The limited field trial showed that mastery of the Pancasila-values material rose from 15.8% (3 of 19 students) before treatment to 84.2% (16 of 19 students) afterward, an increase of 68.4 percentage points corresponding to a high-category N-Gain score of 0.81, while group-based civic skills scores across five groups improved from a range of 55.5-72.2 to 88.8-100. These findings indicate that Pelita Lima Simbox is a feasible, practical, and effective medium for fostering cooperation, responsibility, communication, and active participation, thereby strengthening students' civic skills in practicing Pancasila values in everyday life.

Keywords: Civic Skills; Pancasila Education; Pelita Lima Simbox; Primary School; Role Playing.

INTRODUCTION

Civic education (Pendidikan Kewarganegaraan/PKn) is a compulsory subject at the primary school level and plays a strategic role in shaping the character of the younger generation. In accordance with Permendikdasmen RI Number 12 of 2025, its scope covers the history of Pancasila, the meaning of its five principles (sila), and the symbols and mottos of the state. Children of primary-school age are in Piaget's concrete-operational stage, in which they begin to think logically about real objects but still find it difficult to process abstract concepts. Consequently, teaching Pancasila needs to be designed to match this developmental characteristic by using concrete, engaging media that involve students directly. In practice, however, learning about the sila of Pancasila at the primary level is still frequently delivered conventionally, relying on lecturing, PowerPoint slides, and textbooks that provide little concrete learning experience.

Pancasila is the foundation and ideology of the Indonesian nation, containing moral, ethical, and normative guidance that every citizen is expected to internalize and practice in daily life. Teachers, however, tend to rely on lecturing and rote memorization, which leaves students passively receiving information, quickly bored, and prone to forgetting the material. Understanding Pancasila cannot be reduced to memorizing the order of its principles; students must be able to internalize the meaning of each principle and apply it consistently in everyday situations at home and at school.

An instructional medium is any tool used to convey learning content so that it can be understood optimally, and it functions best when matched to students' developmental level and when it gives them an active role rather than a purely receptive one. Civic skills, in turn, refer to a set of competencies — thinking critically about public issues, cooperating constructively, communicating respectfully, and taking responsibility for shared decisions — that primary school students acquire not by memorizing the five Pancasila principles but through repeated, guided experience in cooperating, negotiating roles, and resolving small conflicts. Media that only display information, such as posters or slides, tend to leave this internalization at a surface, cognitive level and place students in a passive position, whereas media that invite manipulation, discussion, and role enactment create the active engagement that

civic-skills development requires. This principle underlies the decision, in the present study, to combine a concrete visual medium (the exploding box) with a structured social activity (role playing through Action Cards) rather than relying on either element alone.

Preliminary observation indicates that the low achievement of primary students in applying Pancasila values in daily life is closely related to limited innovation in the instructional media and methods used in the classroom. The use of media that are concrete, interactive, and designed according to students' needs and characteristics has been shown to significantly improve learning outcomes and students' civic skills (Nurainun et al., 2026), while learning approaches that actively involve students, such as role playing, have been shown to increase learning motivation, creativity, and retention (Naldi et al., 2024; Rahma et al., 2026). These findings indicate that the success of learning does not depend solely on the material being taught, but also on the medium chosen to deliver it.

Role playing is a learning activity in which students take on the role of a particular character; through this simulation, students develop problem-solving skills and behavior while exploring the subject matter through a more distinctive, experiential approach. Building on this idea, an exploding-box format — a cube-shaped box that, when opened, unfolds in a way that resembles blooming or exploding to reveal images or text related to a chosen theme — was adapted into the Pelita Lima Simbobox medium. The medium was developed as a box containing the symbols of the five Pancasila principles, each accompanied by colors and illustrations depicting its meaning, so that students can learn the sila through direct experience (learning by doing) rather than through verbal explanation alone.

Role-playing activities are considered effective for civic-skills development because they compress a social situation into a manageable, rule-bound simulation: students must interpret a scenario, decide how their character should act in light of Pancasila values, and negotiate that decision with peers who may hold different views. This process rehearses precisely the skills that formal instruction alone rarely exercises — perspective-taking, turn-taking, and collective decision-making — while keeping the cognitive content (the meaning of each principle) tied to a concrete situation rather than an abstract definition. When such an activity is paired with a physical, manipulable medium such as an exploding box, students receive both a visual anchor for the material and a social structure for practicing it, which is expected to reinforce retention and application more strongly than either element in isolation.

Problem identification at SDN 5 Tilongkabila shows that: (1) instruction on the Pancasila principles is still monotonous and relies heavily on lecturing, lowering student motivation; (2) the media used, mainly an LCD projector and PowerPoint slides, is not sufficiently interactive; (3) concrete media is rarely used, with instruction largely confined to student and teacher textbooks; and (4) students still find it difficult to apply Pancasila values consistently in daily life. These conditions confirm the need for an innovative, concrete, and interactive medium capable of raising students' active participation and supporting the internalization of Pancasila values.

Several related products have previously been developed, such as smart-box media for social studies (Amina & Yusnaldi, 2024), a smart exploding-box medium for Pancasila-related attitudes and behavior (Nabila & Paksi, 2025), and an interactive smart-box medium for the Garuda Pancasila symbol (Elvani et al., 2025). These studies reported that box-based visual media improved student learning outcomes and classroom engagement, which confirms that the exploding-box format itself is a sound instructional idea; however, in each case the box functioned as a one-directional visual aid that students opened and viewed, with no built-in mechanism for social interaction, negotiation, or repeated group use once the images had been seen. Pelita Lima Simbobox departs from this pattern in three concrete ways. First, it pairs the box with a set of Action Cards that turn each panel's content into a role-playing scenario, so that the same material can be revisited through a socially interactive activity rather than only viewed once. Second, it uses a Puzzila (Pancasila puzzle) as a built-in, content-linked mechanism for forming cooperative groups, rather than relying on an external grouping method unrelated to the material. Third, its four-panel structure is explicitly sequenced — the state symbol and Pancasila as a whole, then the principles in pairs, then the fifth principle together with the grouping activity — to scaffold the transition from individual viewing to collaborative role-playing within a single medium. This combination is what allows Pelita Lima Simbobox to function simultaneously as a visual aid and as a reusable educational game that fosters civic skills, rather than as a display that is exhausted after a single viewing. This study, therefore, aimed to (1) analyze the initial learning needs, (2) design, (3) develop, and (4) implement and evaluate the feasibility, practicality, and effectiveness of the Pelita Lima Simbobox medium, and thereby (5) improve the civic skills of third-grade students of SDN 5 Tilongkabila in practicing Pancasila values. This research is expected to benefit researchers by broadening their direct experience in developing instructional media, benefit teachers by providing an engaging alternative medium for teaching the Pancasila principles, and benefit students by helping them understand the material more quickly while building their learning motivation.

Under the Kurikulum Merdeka framework and its successor policies, Pendidikan Pancasila is positioned as a competency-based subject in which students are expected not only to recognize the content of each principle but also to demonstrate its practice through observable behavior — cooperating with classmates, respecting differences of opinion, and taking responsibility within a group task. This competency-based framing raises the bar for what counts as adequate instruction: a lesson that conveys the wording of each sila without giving students an opportunity to practice the corresponding behavior falls short of the curriculum's own definition of successful learning. It is this gap between content coverage and behavioral practice that the present study's combination of a concrete display medium and a structured role-playing activity was designed to close.

In summary, this study was guided by five specific objectives: (1) to analyze students' and teachers' initial learning needs regarding instruction on the Pancasila principles; (2) to design the Pelita Lima Simbobox medium, including its exploding-box structure, Action Cards, material book, usage-guide book, and Puzzila; (3) to develop the designed product into a validated, ready-to-use instructional medium; (4) to examine its feasibility through expert validation and its practicality through a limited field trial; and (5) to evaluate its effectiveness in improving third-grade students'

civic skills in practicing Pancasila values. Beyond its immediate classroom application, this study is intended to contribute academically to the growing body of Research and Development literature on concrete, role-play-based media for civic and character education in Indonesian primary schools, offering a replicable design procedure that other researchers and teachers may adapt to different topics, grade levels, or regional contexts.

RESEARCH METHODOLOGY

This study employed the Research and Development (R&D) method, which is used to produce a specific product and to test its effectiveness. Educational problems can be addressed through this approach so that more innovative educational practices can be developed and applied. The product developed in this study was the Pelita Lima Simbobox learning medium, an instructional tool designed to improve third-grade students' civic skills in practicing Pancasila values.

Research and Development can be defined as a process used to develop and validate educational products, ranging from teaching materials and instructional media to management procedures, through a systematic cycle of design, expert review, and field testing (Gay, 1990, as cited in Okpatrioka, 2023). This definition underlines two features that shaped the present study's design: first, that the resulting product must be validated by qualified experts before it is considered ready for classroom use, and second, that its practicality and effectiveness must be examined empirically rather than assumed from its design alone. Both features are reflected in the two-track evaluation strategy adopted here, combining formative expert validation with a summative limited field trial.

The development procedure followed the ADDIE model (Lee, 2004), which consists of five stages: Analysis, Design, Development, Implementation, and Evaluation. In the Analysis stage, the researcher identified learning needs through classroom observation, interviews with the class teacher, and analysis of students' characteristics and of the product to be developed. In the Design stage, the researcher used the Canva application to design the visual layout of the box, the Action Cards, the material book, the usage-guide book, and the Puzzila. In the Development stage, the designed product was produced and reviewed by the supervisor before being validated by material, media, language, and user experts to identify weaknesses and obtain suggestions for improvement. In the limited-trial (Implementation) stage, the revised medium was applied directly in the classroom to observe students' responses, without testing broader effectiveness across other settings. The Evaluation stage was carried out formatively, through expert validation during development, and summatively, through a student-response questionnaire and a pretest-posttest administered during the limited trial.

The research was conducted at SDN 5 Tilongkabila, Gorontalo, in April of the 2026/2027 even semester, with the limited trial carried out on 25 May 2026. The subjects were 19 third-grade students, together with five experts: two material experts, one media expert, one language expert, and one user expert (the class teacher).

The product specification of Pelita Lima Simbobox is a box made of plywood and wood covered with printed sticker paper, using cream, orange, and brown as its main colors. The medium consists of four panels: the first displays the Garuda Pancasila emblem together with the text of Pancasila; the second displays the symbols of the first and second principles; the third displays the symbols of the third and fourth principles; and the fourth displays the symbol of the fifth principle together with the Puzzila. The medium is complemented by a set of Action Cards containing role-playing scenarios, a material book covering the meaning and application of each principle as well as the philosophy of the Garuda emblem, and a usage-guide book, all designed using the Canva application.

The class III subjects were selected purposively, on the grounds that the low-grade curriculum places particular emphasis on the introduction of Pancasila symbols and their basic meaning, and that the class teacher had specifically identified this material as difficult for students to internalize using the media currently available. Each of the five validators was likewise selected purposively based on relevant expertise: the two material experts held academic backgrounds in Pancasila and civic education, the media expert specialized in instructional-media design, the language expert reviewed the readability and correctness of the Indonesian-language text used in the product, and the user expert was the class teacher directly responsible for delivering the material.

The expert-validation questionnaires were organized around indicator grids (kisi-kisi) specific to each area of expertise: the material-validation instrument contained nine items covering the accuracy, completeness, and age-appropriateness of the Pancasila content (maximum score 36), the media-validation instrument contained ten items covering visual design, durability, ease of use, and attractiveness (maximum score 40), and the language- and user-validation instruments were similarly structured around indicators relevant to linguistic clarity and classroom usability, respectively. Each item was rated on a four-point scale (1 = Not Feasible to 4 = Very Feasible), and the resulting raw score for each validator was converted into a percentage using the formula described below before being matched against the feasibility criteria.

The research instruments — the expert-validation questionnaire, the student-response questionnaire, and the pretest-posttest — were first tested for content validity through expert judgment involving material, media, language, and user experts to ensure that each item was consistent with the indicator it was intended to measure. Instrument reliability was examined through the consistency of scores given across validators; an instrument was considered reliable when it produced relatively consistent assessment results.

Data were collected through observation, interviews, a Likert-type questionnaire (four categories: Not Feasible, Fairly Feasible, Feasible, and Very Feasible) used for expert validation and student responses, a short multiple-choice pretest-posttest to measure students' understanding of the Pancasila-values material, and documentation. Data on expert-validation feasibility were analyzed descriptively and quantitatively using a percentage formula, $P = (\Sigma x / \Sigma xi)$

$\times 100$, where Σx is the total score obtained from all respondents and Σx_i is the maximum possible score for all items; the resulting percentage was then matched against the following feasibility criteria: $\leq 20\%$ very unfeasible, 21-40% unfeasible, 41-60% fairly feasible, 61-80% feasible, and 81-100% very feasible. Effectiveness was analyzed using a one-group pretest-posttest pre-experimental design together with the N-Gain test, with gain scores categorized as high ($g > 0.7$), medium ($0.3 < g < 0.7$), or low ($g < 0.3$).

The one-group pretest-posttest design used to evaluate effectiveness can be represented notationally as $T1 - X - T2$, where $T1$ is the pretest administered before treatment, X is the treatment (learning with Pelita Lima Simbobox), and $T2$ is the posttest administered after treatment. The gain between $T1$ and $T2$ was normalized using the N-Gain formula, $g = (S_e - S_i) / (S_{max} - S_i)$, where S_e is the posttest score, S_i is the pretest score, and S_{max} is the maximum possible score; the resulting g value was then classified as high ($g > 0.7$), medium ($0.3 < g \leq 0.7$), or low ($g \leq 0.3$). This normalized measure was chosen over a simple raw-score difference because it accounts for how much room for improvement each student had relative to the maximum score, giving a fairer picture of learning gain across students who started from different initial ability levels.

RESULTS AND DISCUSSION

This section presents the results of developing the Pelita Lima Simbobox medium through the five stages of the ADDIE model, followed by the results of expert validation and the limited field trial, and closes with a discussion linking these findings to relevant theory and prior research.

Results

Interviews with the class teacher revealed that instruction on the practice of Pancasila values had been linked to students' real-life experiences through storytelling, question-and-answer sessions, discussions, and examples of everyday behavior, and that students generally showed good enthusiasm during these activities. Some students, however, remained passive and found it difficult to express their opinions, and students in general still struggled to understand the meaning of each Pancasila principle deeply and to distinguish behavioral examples appropriate to each principle. The media commonly used by the teacher — pictures, posters, student textbooks, simple instructional videos, and picture cards — had helped raise students' interest but had not fully facilitated optimal understanding, partly because of the limited media available at school and the time required to prepare it. These findings confirmed the need for a medium that is simple, attractive, interactive, and concrete, so that it can be touched, played with, and actively involve students in the learning process.

Each of the four panels of the exploding box was designed around a specific instructional function. The first panel, displaying the Garuda Pancasila emblem together with the full text of Pancasila, served as an orienting overview that students encountered before the box was opened further, establishing the state symbol and the five principles as a connected whole rather than five isolated facts. The second and third panels, displaying the symbols of the first through fourth principles in pairs, allowed the teacher to introduce two principles at a time alongside their associated Action Cards scenarios, which the class teacher reported made lesson pacing easier to manage than presenting all five principles in a single sitting. The fourth panel, displaying the symbol of the fifth principle together with the Puzzila, was positioned last so that the group-formation activity using the Puzzila pieces would naturally follow the content covering all five principles, transitioning the lesson from individual content exposure to the collaborative Action Cards activity.

In the Design stage, the researcher used Canva to design the visual layout of the four-sided box, the Action Cards, the material book, the usage-guide book, and the Puzzila, using bright, varied colors — cream, orange, and brown as the main theme — to attract third-grade students. In the Development stage, the designed product was produced in physical form and reviewed by the supervisor before undergoing expert validation. The complete product integrates a four-panel exploding box, Action Cards for role-playing activities, a material book covering the sila of Pancasila together with the philosophy of the Garuda emblem, a usage-guide book, and a Puzzila used to form learning groups (Figure 1 and Figure 2).

The feasibility of Pelita Lima Simbobox was evaluated by two material experts, one media expert, one language expert, and one user expert (the class teacher), using a four-point Likert questionnaire covering aspects of content, visual design, language, and usability. The recapitulation of the validation results is presented in Table 1.

Table 1. Recapitulation of Expert Validation Results for Pelita Lima Simbobox

No	Validator / Aspect Assessed	Feasibility (%)	Category
1	Dr. Candra Cuga, S.Pd., M.Pd., M.CE (Material Expert)	91.66	Very Feasible
2	Reska Putri Ismail, S.Pd., M.Pd (Material Expert)	100	Very Feasible
3	Ade Mahniar, S.Pd., M.Pd (Media	90	Very Feasible

	Expert)		
4	Fidyawati Monoarfa, S.Pd., M.Pd (Language Expert)	87.5	Very Feasible
5	Ditya Ibrahim, M.Pd (User Expert / Class Teacher)	87.5	Very Feasible
	Average Score	91.33	Very Feasible

Table 1 shows that all five validators rated Pelita Lima Simbobox in the very feasible category, with an average feasibility score of 91.33%. The media-validation process required two rounds: the first round produced a feasibility score of 70% (feasible, but requiring revision), mainly because of insufficiently clear images and text, limited durability of materials, and inconsistent color, font, and layout. Following revisions to these aspects, the second round of media validation produced a feasibility score of 90% (very feasible), confirming that the product was ready for the limited field trial.

Table 2. Material Expert Validation Results by Aspect (Validator 1, Final Round)

No	Aspect Assessed	Score	Category
1	Suitability of the material with the learning objectives	4	Very Feasible
2	Suitability of the material with the curriculum	4	Very Feasible
3	Suitability of the material with the intended learning outcomes	4	Very Feasible
4	Suitability of the question cards with the material	3	Feasible
5	Ease of the material for students to understand	4	Very Feasible
6	Completeness of the Pelita Lima Simbobox material	4	Very Feasible
7	Sequential, logical presentation of the material	3	Feasible
8	Conciseness and clarity of the material	3	Feasible
9	Interactive presentation of the material	4	Very Feasible
	Total (33 of 36; 91.66%)	33	Very Feasible

A similar item-level pattern is available for the material-validation instrument. Table 2 presents the final-round scores given by the first material expert across the nine indicators used to judge content accuracy, curricular alignment, and presentational quality; six of the nine items received the maximum score of 4 (Very Feasible), while the remaining three — the alignment of the question cards with the material, the sequencing of the material, and the conciseness of the material — received a score of 3 (Feasible), together yielding the 91.66% shown in Table 1. The concentration of slightly lower scores on presentation-related items, rather than on content-accuracy items, indicates that the underlying Pancasila content itself was judged sound from the outset, and that subsequent refinement focused mainly on how that content was sequenced and worded for third-grade readers.

Table 3. First-Round Media Validation Results by Aspect

No	Aspect Assessed	Score	Category
1	Accuracy of the Pelita Lima Simbobox display	3	Feasible
2	Clarity of images and text	2	Fairly Feasible
3	Suitability of the text for grade III students' characteristics	3	Feasible
4	Ease of using the medium	3	Feasible
5	Safety and durability of the medium	2	Fairly Feasible
6	Suitability of illustrations to the material	3	Feasible
7	Clarity of the usage-guide instructions	3	Feasible
8	Consistency of color, font, and layout	2	Fairly Feasible
9	Appropriateness of the medium's size	3	Feasible

10	Attractiveness and motivational value of the medium	4	Very Feasible
	Total (28 of 40; 70%)	28	Feasible

The language-expert validation, which focused on the correctness, clarity, and age-appropriateness of the Indonesian-language text used across the material book, Action Cards, and usage-guide book, produced a feasibility score of 87.5%, with the main suggestions concerning simplifying a small number of sentences that used vocabulary above the typical reading level of third-grade students. The user-expert validation, conducted by the class teacher from a practical classroom-management perspective, also produced a feasibility score of 87.5%, with feedback centered on ensuring that the Action Cards' instructions could be explained within a short amount of class time and that group transitions during the Puzzila activity would not consume an excessive portion of the lesson. Both sets of feedback were incorporated into the final revision alongside the media-related changes described below, and neither expert identified any content-accuracy concerns, which is consistent with the very feasible rating obtained from both material experts.

The item-level results of the first-round media validation, presented in Table 3, show more precisely which aspects required revision. Three items — the clarity of images and text, the safety and durability of the medium, and the consistency of color, font, and layout — each received a score of 2 (Fairly Feasible), while the remaining seven items scored 3 or 4. These three items directly informed the revisions made before the second validation round: text and images were enlarged and sharpened, the box structure was reinforced for repeated classroom handling, and the color palette, font choices, and layout were standardized across all four panels and the accompanying Action Cards. The improvement from a 70% to a 90% feasibility score between the two rounds corresponds closely to the resolution of exactly these three weaknesses, indicating that the revision process was targeted rather than general.

The limited trial was conducted on 25 May 2026, involving 19 third-grade students, with the class teacher acting as an observer of the learning process and the use of the medium. Students' understanding of the Pancasila-values material was measured through a short multiple-choice test administered before and after the use of Pelita Lima Simbobox, as summarized in Table 4.

Table 4. Individual Mastery of Pancasila-Values Material Before and After Using Pelita Lima Simbobox

No	Category	Number of Students	Percentage
1	Reached mastery (Pretest)	3 of 19	15.8%
2	Not yet mastered (Pretest)	16 of 19	84.2%
3	Reached mastery (Posttest)	16 of 19	84.2%
4	Not yet mastered (Posttest)	3 of 19	15.8%
	Increase in mastery	-	68.4%

Prior to treatment, only 3 of the 19 students (15.8%) reached the mastery criterion, a result influenced by students' still-limited reading ability and their need for guidance in understanding and answering the test items. After using Pelita Lima Simbobox, 16 of the 19 students (84.2%) reached mastery, an increase of 68.4 percentage points. Normalizing this gain against the maximum possible score yielded an N-Gain score of $g = 0.81$, which falls in the high category ($g > 0.7$), indicating that the medium was able to support more concrete, interactive, and contextual learning of Pancasila values and that the improvement in mastery was substantial relative to the room for improvement available.

Civic skills were also assessed at the group level using an observation rubric completed by the class teacher and the researcher during each group's role-playing performance. The rubric covered five indicators — cooperation among group members, individual responsibility for the assigned role, active participation in the discussion and performance, the ability to respect other members' opinions when the scenario required a joint decision, and the consistency of the group's enacted behavior with the Pancasila principle illustrated by its scenario card — each rated on the same four-point scale used for expert validation (1 = Not Feasible/Not Shown to 4 = Very Feasible/Strongly Shown). A group's raw score across the five indicators (maximum 20) was converted into a percentage using the same formula, $P = (\sum x / \sum xi) \times 100$, that was used for expert-validation feasibility, so that the group scores reported in Table 5 are directly comparable in scale to the feasibility percentages reported elsewhere in this article. The results for the five learning groups are presented in Table 5.

Table 5. Improvement of Group-Based Civic Skills Scores After Using Action Cards

No	Group	Initial Score	Final Score
1	Group 1	66.6	88.8
2	Group 2	55.5	88.88
3	Group 3	66.6	88.88
4	Group 4	72.22	100
5	Group 5	55.5	88.88

All five groups showed an increase in civic-skills scores after using the Action Cards, with scores rising from a range of 55.5-72.2 before treatment to 88.8-100 afterward. Group 4 achieved the highest final score (100), reflecting excellent cooperation, responsibility, and practice of Pancasila values, while Groups 2 and 5, which began with the lowest initial scores (55.5), showed the largest gains, reaching 88.88 after treatment. These results indicate that the Action Cards, combined with the Pelita Lima Simbobox medium, were effective in developing students' cooperation, courage in expressing opinions, and sense of responsibility within group activities.

During the limited trial, each of the five groups received a distinct scenario card from the Action Cards set, describing an everyday situation in which one or more Pancasila principles were relevant — for example, a disagreement among friends that called for deliberation and mutual respect, or a situation requiring cooperation to complete a shared task. Group members first read their scenario together, discussed which principle it illustrated and how each member's assigned role should respond, and then acted out the scenario in front of the class while the teacher and the other groups observed. The Puzzila was used at the start of this activity to form the five groups: each puzzle piece corresponded to a symbol of one of the five Pancasila principles, and students who received matching pieces were grouped together, which both randomized group composition and reinforced symbol recognition before the role-playing activity began.

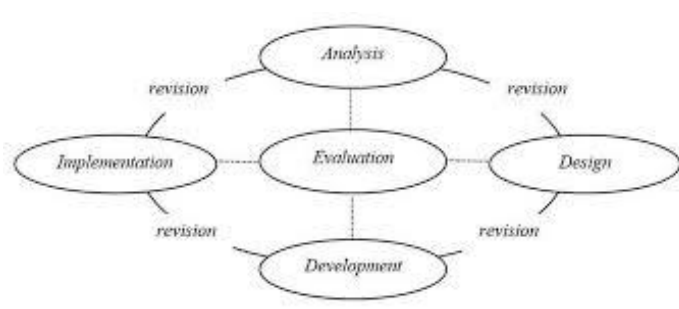


Figure 1. ADDIE Development Model Stages



Figure 2. Cover Design of the Pelita Lima Simbobox Material Book

Discussion

Through a Research and Development approach, this study succeeded in producing Pelita Lima Simbobox, an instructional medium for delivering material on the Pancasila principles, their meaning, and their application in daily life, together with the philosophy of the Garuda Pancasila emblem. This finding is consistent with Cuga et al. (2024), who reported that an augmented-reality medium built around the same Garuda Pancasila material improved student engagement and learning outcomes compared with conventional instruction; the average feasibility score of 91.33% and the 68.4-percentage-point mastery gain obtained here point in the same direction using a lower-technology, physically manipulable medium instead of AR, suggesting that the engagement benefit reported for Garuda Pancasila media does not depend on digital technology specifically but on the shift from a lecture-based to a hands-on mode of delivery. Building on this shared foundation, Pelita Lima Simbobox extends the idea further by embedding a role-playing mechanism (Action Cards) and a content-linked grouping tool (Puzzila) that AR-based and earlier box-based media did not include, which is what allows the medium to also target the behavioral, cooperative dimension of civic skills rather than content recall alone.

The application of role-playing media has been shown to strengthen students' cooperative attitudes through activities that have clear objectives, agreed-upon rules, and an element of enjoyment (Rahmahwati et al., 2024), and role-playing approaches more generally have been associated with higher learning motivation and improved learning outcomes in primary classrooms (Naldi et al., 2024; Yusnarti & Suryaningsih, 2021). The present findings confirm this pattern at both the individual and group level: the rise in individual mastery from 15.8% to 84.2% (N-Gain = 0.81, high category) parallels the achievement gains reported in those role-playing studies, while the increase in group civic-skills scores from a range of 55.5-72.2 to 88.8-100 extends the pattern to a dimension — cooperative, in-role behavior — that a paper-and-pencil achievement test alone cannot capture. Mechanistically, this occurred because the Action Cards required students to interpret their assigned roles, consider the interests of the group, and respect the opinions of their peers before reaching a decision, rather than simply answering a question individually; this social-negotiation step is precisely what a lecture-based or purely visual medium omits, which is consistent with why role-playing formats outperform them in the cited studies. Beyond supporting cognitive understanding, this process helped students learn to view situations from others' perspectives, strengthening empathy and a shared sense of togetherness.

These results can be explained through Edgar Dale's well-known Cone of Experience, a model of instructional design that describes levels of learning experience ranging from the concrete to the abstract. The model predicts that learning is retained and applied more strongly when it is acquired through direct, concrete participation rather than through verbal or purely visual channels; this is precisely the mechanism that distinguishes Pelita Lima Simbobox from the static smart-box media reviewed earlier (Amina & Yusnaldi, 2024; Elvani et al., 2025), which position students at the more passive, "observing" layers of the Cone rather than at the "doing" layer. Within this framework, the box itself supplies the concrete visual anchor, while the Action Cards move students from watching to doing: they discuss, decide, and enact a scenario rather than only viewing an image of a principle. Learning becomes more meaningful when students are directly involved in an activity rather than merely receiving information verbally or symbolically: students did not simply listen to the material but actively took part in discussion, role playing, cooperation, and problem solving related to the Pancasila principles. The finding that individual test scores and group behavioral scores both improved together, rather than only one of the two, is exactly what the Cone of Experience would predict if the medium had genuinely shifted the learning experience toward the concrete end of the scale, and it is this dual improvement — not the box's visual design alone — that differentiates the present results from media that report gains on knowledge tests without a corresponding behavioral measure.

The high level of student engagement observed during the trial can also be explained through Self-Determination Theory, a motivational framework introduced by Edward L. Deci and Richard M. Ryan in the 1980s and still widely applied in education research today, which holds that motivation develops optimally when three basic psychological needs are met: autonomy, competence, and relatedness. Autonomy was met through the freedom given to students to take on roles, voice opinions, and participate in group decisions during the Action Cards activity — a degree of choice that a fixed-sequence smart-box display, viewed in a predetermined order, does not offer. Competence was reflected in students' growing confidence as they successfully completed the roles and challenges presented by the medium, which were designed to match the developmental level of third-grade students, while relatedness was fostered through the intensity of peer interaction during group play and discussion. Where earlier smart-box studies (Amina & Yusnaldi, 2024; Nabila & Paksi, 2025) report improved attention and interest arising from the novelty of an interactive display, the additional gain observed here in cooperative, group-level civic skills suggests that satisfying relatedness and autonomy — needs a solitary viewing activity cannot fully address — is what pushed the outcome beyond attention and interest toward demonstrated

cooperative behavior. The fulfillment of these three needs together, rather than any single one, helps explain why the role-playing activities supported by Pelita Lima Simbobox were able to encourage more optimal student engagement and a meaningful increase in civic skills.

Limitations

This study is limited in three respects, each with direct implications for how far its findings can be generalized. First, the trial involved only 19 students in a single class at a single school, with no control or comparison group and no replication across other classes or schools; a sample of this size and structure is appropriate for an initial feasibility and practicality test within a Research and Development design, but it means the reported gains cannot be attributed to Pelita Lima Simbobox alone with the same confidence a controlled, multi-site study would provide, since factors specific to this one class — such as its particular teacher, group dynamics, or baseline ability — cannot be statistically separated from the effect of the medium itself. Consequently, the effectiveness figures reported here (the 68.4-percentage-point mastery gain and the N-Gain score of 0.81) should be read as evidence that the medium performed well in this specific setting, not as a generalizable effect size for third-grade classrooms in general; establishing generalizability would require a larger sample, a comparison group taught with conventional media, and replication across multiple schools with different socioeconomic and geographic characteristics. Second, the scope of the material was restricted to the introduction of the Pancasila symbols, the meaning and everyday application of each principle, and the philosophy of the Garuda emblem; it did not extend to other civic-education topics within the primary curriculum, such as the history of Pancasila's formulation, social norms, or citizens' rights and obligations, so claims about the medium's effectiveness should be understood as specific to this content scope. Third, the positive results reported here — the high feasibility scores, the increase in individual mastery, and the improvement in group civic-skills scores — were obtained under a single implementation supported directly by the researcher and an attentive class teacher; sustained use by other teachers without similar support has not yet been examined.

Notwithstanding these limitations, the consistency between the expert-validation results, the individual mastery gains, and the group-level civic-skills improvement provides converging evidence that the medium performed as intended within the scope tested, and it offers a concrete starting point for the broader trials called for above.

CONCLUSION

This study shows that the development of the Pelita Lima Simbobox medium through the ADDIE model successfully addressed the identified need for a concrete, interactive alternative to the lecture- and PowerPoint-based instruction that had previously dominated the teaching of Pancasila values at SDN 5 Tilongkabila. By integrating a four-sided exploding box, Action Cards for role-playing, and a Puzzila for cooperative grouping, the medium translates the abstract meaning of the five Pancasila principles into a concrete, learning-by-doing experience suited to the concrete-operational thinking of primary school students.

Expert validation confirmed that the medium is very feasible for classroom use, with an average score of 91.33% across the aspects of content, visual design, language, and usability; the iterative revision between the first and second rounds of media validation further indicates that the development process was carried out carefully and responsively to expert feedback. The limited field trial reinforces this conclusion at the practical level: the marked increase in individual mastery of the Pancasila-values material, from 15.8% to 84.2% of students, together with the consistent improvement in group-based civic-skills scores across all five groups, suggests that the combination of concrete media and role-playing activities can meaningfully strengthen students' cooperation, responsibility, communication, and active participation — the core dimensions of civic skills — rather than only their recall of factual content.

These findings open several prospects for further development and application. Beyond its current scope, the ADDIE-based development procedure and the role-playing mechanism underlying Pelita Lima Simbobox could be extended to other Pancasila and civic-education topics, such as norms or citizens' rights and obligations, and tested across a wider range of classes and schools to examine its effectiveness under more varied conditions. Such extensions would allow the medium's contribution to civic-skills development to be examined more broadly, supporting its potential adoption as a practical alternative for civic education in Indonesian primary schools. Building on the limitations discussed above, four directions are recommended for future research. First, subsequent studies should replicate this design with a larger sample and a comparison group taught with conventional media, so that the effect of Pelita Lima Simbobox can be evaluated statistically against a baseline rather than through a one-group pretest-posttest design alone. Second, the trial should be extended across

multiple classes and schools with different socioeconomic and geographic characteristics to test whether the feasibility and effectiveness results reported here hold under more varied classroom conditions. Third, future work could examine the medium's longer-term impact by measuring retention of both content mastery and civic behavior several weeks or months after the initial trial, since the present study captured only immediate post-treatment outcomes. Fourth, the same ADDIE-based procedure and Action-Cards-and-Puzzila mechanism could be adapted to other civic-education topics not covered here, such as the history of Pancasila's formulation or citizens' rights and obligations, to examine whether the pattern of results observed in this study generalizes beyond the specific content scope tested.

REFERENCES

- Amina, S., & Yusnaldi, E. (2024). Pengembangan Media Smart Box untuk Meningkatkan Hasil Belajar pada Mata Pelajaran Ilmu Pengetahuan Sosial di Madrasah Ibtidaiyah. *Jurnal Pendidikan*, 13(3).
- Aulia, F., Cuga, C., & Nurdiyanti, A. (2024). Pengembangan Media Komik Digital Bhinneka dalam Pembelajaran PKn di Sekolah Dasar. *Journal of Social Science Research*, 4(6), 2.
- Cuga, C., Astuti, N. N. N. D., & Adhani, Y. (2024). Learning Pancasila through Garuda AR media. *Jurnal Ilmiah Pendidikan Profesi Guru*, 7(2), 404–414.
- Daniyati, A., et al. (2023). Konsep Dasar Media Pembelajaran. *Journal of Student Research (JSR)*, 1(1).
- Elvani, D., Ichwansyah, et al. (2025). Inovasi Media Pembelajaran Interaktif Smart Box pada Materi Lambang Garuda Pancasila di Kelas IV Sekolah Dasar. *Jurnal Pengabdian kepada Masyarakat*, 9(1).
- Faradhila, K. D. W. (2025). Development of Smart Box Learning Media on Earth Layers Material to Improve Student Learning Outcomes. *Journal of Research in Science Education*, 11(2).
- Irliandi, A. I., & Rusilowati, A. (2025). Hubungan Minat Belajar Civic Skills Mata Pelajaran Pendidikan Pancasila dan Kewarganegaraan. *Jurnal Pendidikan Dasar*, 10(2), 334.
- Jaya, R., Djafaar, L., & Cuga, C. (2023). Pendidikan Kewarganegaraan sebagai Wahana Pengembangan Wawasan Kebinekaan Global Siswa. *Journal of Social Science Research*, 3(2).
- Khulfiya, N., Akhyar, Z., & Elmy, M. (2022). Keterampilan Berkewarganegaraan (Civic Skills) Santri pada Pondok Pesantren Salafiyah Nurul Jannah Banjarmasin. *Jurnal Publikasi Berkala Pendidikan Ilmu Sosial*, 2(1), 31.
- Lina, R., Mardiani, Jannah, N., & Winata, P. (2025). Prinsip dan Kriteria Pemilihan Media Pembelajaran. *Jurnal Generasi Tarbiyah: Jurnal Pendidikan Islam*, 4(1).
- Mokoginta, D., Ismail, R. P., & Pomalingo, S. (2025). Lingkungan Belajar Abad 21 pada Pembelajaran Pendidikan Kewarganegaraan (PKn) di Sekolah Dasar Negeri (SDN) 3 Tapa Kabupaten Bone Bolango. *Manggala Journal*, 2(4), 3.
- Nabila, P. L., & Paksi, H. P. (2025). Pengembangan Media Pembelajaran Smart Exploding Box untuk Meningkatkan Pemahaman Siswa pada Materi Sikap dan Perilaku Sesuai Nilai-Nilai Pancasila Kelas IV di Sekolah Dasar. *Jurnal Penelitian Pendidikan Guru Sekolah Dasar*, 13(2).
- Naldi, A., Oktaviandry, R., et al. (2024). Model Pembelajaran Role Playing dalam Meningkatkan Fokus Peserta Didik. *Jurnal Bintang Pendidikan Indonesia*, 2(2).
- Nurainun, N., Nurlisa, S., & Cuga, C. (2026). Pengembangan Media ELEMENTER pada Mata Pelajaran Pendidikan Pancasila Kelas IV di Sekolah Dasar. *Journal of Primary Education*, 9(3), 2.
- Nurlailah, N., & Ardiansyah, H. (2022). The Influence of the School Environment on Character Formation of Students in PKn Lessons. *Educational Journal of History and Humanities*, 5(2).
- Panca, W. K., Sjamsir, H., & Arbayah, A. (2021). Peningkatan Kemampuan Mengenal Keaksaraan Awal Anak Usia 5-6 Tahun melalui Media Kotak Pintar di TK Islam Terpadu Asiah Kecamatan Mentawa Baru Ketapang Kabupaten Kotawaringin Timur. *Journal Borneo Educational Management and Research Journal*, 2(2), 32-33.
- Pujiastuti, A., Nanda, S. N., et al. (2023). Peran Mata Kuliah Pendidikan Kewarganegaraan dalam Pembentukan Karakter Mahasiswa. *Advances in Social Humanities Research*, 1(5).
- Putri, H. J., & Murhayati, S. (2025). Metode Pengumpulan Data Kualitatif. *Jurnal Pendidikan Tambusai*, 9(2), 4-11.
- Rahma, N. H. B., Cuga, C., Mahniar, A., Ismail, R. P., & Nurainun, N. (2026). Pengembangan Media Komik Sila Squad Adventures pada Pembelajaran Pendidikan Kewarganegaraan di Sekolah Dasar. *Journal of Primary Education*, 9(3), 4.
- Rahmahwati, R., et al. (2024). Penerapan Media Role Playing untuk Meningkatkan Kerja Sama. 9.
- Ramadani, N. A., Kiranaz, C. K., et al. (2023). Pengaruh Penggunaan Media Pembelajaran terhadap Dunia Pendidikan (Studi Literatur). *Jurnal Pendidikan Dasar dan Sosial Humaniora*, 2(6).

- Keragaman di Indonesia untuk Siswa Kelas IV SD. *Jurnal Unublitar*, 7(1), 148.
- Vandita, Y. L., & Ahmad, T. (2023). Pengaruh Pendidikan Kewarganegaraan dalam Membangun Karakter Generasi Muda. *Jurnal Penelitian dan Ilmu Pendidikan*, 4(2), 291-292.
- Yusnarti, M., & Suryaningsih, L. (2021). Pengaruh Model Pembelajaran Role Playing terhadap Hasil Belajar Siswa Sekolah Dasar. *Jurnal Penelitian dan PKM Bidang Ilmu Pendidikan*, 2(3).