Enhancing Literary Literacy through Multimodal Representations: A Development Study of Folklore-Based Creative Puppetry

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Abstract: This study aims to develop Radin Jambat Creative Puppetry as a culturally grounded instructional medium and to examine its feasibility, practicality, and potential influence on elementary school students' literary literacy. Using the ADDIE development model, the media was validated by content, language, and design experts; tested for practicality with teachers and students; and examined using a one-group pretest–posttest design involving 62 fourth-grade students. Data included expert validation ratings, practicality questionnaires, and literary literacy test scores. Expert validation indicated high feasibility across content (92%), language (90%), and media design (94%). Teachers (93%) and students (91%) rated the medium as highly practical. Pretest–posttest comparisons showed an increase in students' scores, and statistical analysis ($t(61) = 14.27$, $p < .001$) and the effect size ($d = 1.21$) indicated positive learning trends. However, causality cannot be inferred due to the research design. The Radin Jambat Creative Puppetry demonstrates promising potential as a culturally grounded, multimodal medium that may support improvements in students' literary literacy. However, because no control group was included, the findings should be interpreted as indicative rather than conclusive. Further research using stronger experimental designs is recommended.

Keywords: literary literacy, creative puppetry, Radin Jambat, elementary school students.

■ INTRODUCTION

Literary literacy is increasingly recognized as a cornerstone of early language education, contributing not only to foundational reading skills but also to higher-order competencies such as narrative reasoning, cultural understanding, and moral interpretation. Recent international studies highlight that narrative comprehension plays a critical role in children's cognitive development, shaping their ability to construct meaning, infer causality, evaluate characters' motivations, and integrate moral lessons into personal experiences (Lacina & Griffith, 2021). Literary literacy is distinct from general reading literacy because it requires multidimensional interpretive processes rather than simple decoding or factual recall. Despite widespread acknowledgment of its importance, research across diverse educational systems continues to report persistent weaknesses in students' literary comprehension, especially at the elementary school level (Webber et al., 2021; Snow, 2002). These challenges are often linked to limited exposure to engaging narrative materials, insufficient scaffolding for interpretive thinking, and pedagogical practices that remain heavily text-centered.

In Indonesia, these concerns are magnified by classroom realities in which literary learning primarily relies on textbooks, teacher explanations, and passive reading tasks. Although national assessments such as PISA suggest broad difficulties in reading, more specialized literature reveals deeper issues in children's ability to interpret plot coherence, identify thematic structures, and make inferential judgments in stories (Snow, 2020). Emerging Southeast Asian

studies further show that students often struggle to understand character motivations and moral dilemmas due to limited opportunities for dialogic and multimodal engagement with narratives (Yoedo & Mustofa, 2022). These findings are consistent with global trends indicating a widening gap between students' surface-level reading skills and the deeper interpretive competencies required for advanced literacy (Lacina & Griffith, 2021; Howe et al., 2019).

The local context of Bandar Lampung aligns with these observations. Preliminary assessments conducted in this study found that only 27% of fourth-grade students were able to construct accurate plot sequences, with even fewer demonstrating proficiency in identifying conflicts (22%) or inferring moral values (18%). These results are not isolated; Indonesian research consistently reports low performance in narrative interpretation due to the absence of culturally relevant learning media and the dominance of conventional, non-interactive pedagogical approaches (Howe et al., 2019). Teachers interviewed also emphasized that students often perceive literary lessons as monotonous and disconnected from their lived experiences, leading to reduced engagement and limited comprehension. Such findings reinforce the argument that effective literary instruction must incorporate meaningful cultural connections and multimodal learning pathways.

Scholars of culturally responsive pedagogy argue that integrating local narratives can significantly enhance student motivation, identity affirmation, and depth of comprehension (Paris & Alim, 2017; Ribosa & Duran, 2023). Folktales transmit cultural wisdom, provide familiar schemas for meaning-making, and create emotional resonance that supports narrative understanding. In the Indonesian context, the Lampung folktale Radin Jambat embodies values of courage, justice, and loyalty, making it a suitable literary resource for children. However, although

Southeast Asia possesses rich storytelling traditions, empirical research on integrating local folklore into structured literacy instruction remains extremely limited. Most existing studies focus on digital storytelling, gamified reading, or generic puppetry, leaving a gap in understanding the pedagogical potential of region-specific narratives (Rahayu, Muhyidin, & Jamaludin, 2025; Marschall & Watson, 2022).

Traditional puppetry, particularly as practiced across Asia, holds significant promise for enhancing literary literacy because it serves as a multimodal medium that integrates visual, verbal, spatial, and gestural modes of communication. Multimodal learning theories suggest that children process information more efficiently when it is presented through multiple coordinated channels, as this reduces cognitive load and fosters deeper comprehension (Gkintoni et al., 2025; Kress, 2010). Puppetry externalizes narrative sequences, transforms abstract story elements into tangible visual forms, and creates embodied experiences that capture students' attention. Teachers worldwide have begun revisiting puppetry as a culturally meaningful tool that supports dialogic learning, narrative interpretation, and emotional engagement (Marschall & Watson, 2022; Firmansyah, 2021). Despite this emerging interest, research integrating puppetry with culturally specific folklore, especially within formal literacy curricula, remains scarce.

A review of current international literature reveals several notable gaps. First, few studies explicitly examine how local cultural heritage can be operationalized into literacy media that support both cognitive comprehension and cultural identity formation. Second, there is limited empirical evidence demonstrating the extent to which multimodal media rooted in folklore can improve literary literacy outcomes through validated assessment tools. Third, most instructional media developments do not follow robust design

frameworks such as ADDIE, resulting in products that lack systematic validation of content, language, and visual quality (Mayer, 2021). Fourth, research on literary literacy in early education often conflates it with general reading ability, thereby overlooking the distinct narrative reasoning skills needed for children to fully understand stories (Lupo, 2019; Kendeou et al., 2016). Addressing these gaps is crucial for advancing both theoretical perspectives and practical approaches in literacy education.

Given this context, the development of Radin Jambat Creative Puppetry represents a theoretically grounded and pedagogically relevant innovation. By integrating local folklore with multimodal storytelling through puppetry, the medium aligns with principles of culturally sustaining pedagogy, narrative cognition, and multimodal literacy. Its design follows a systematic development model, addressing reviewers' concerns about the need for rigorous methodological foundations. Furthermore, its relevance extends beyond the Indonesian context, contributing to global conversations on how traditional cultural arts can enrich contemporary literacy practices in diverse educational settings.

Unlike previous studies that examine puppetry primarily as a motivational or speaking-support tool, this study contributes to the literature by (1) operationalizing region-specific folklore into a systematically validated literacy medium, (2) distinguishing literary literacy from general reading comprehension through explicit narrative indicators, and (3) integrating multimodal puppetry within a structured ADDIE development framework accompanied by empirical effectiveness indicators. The present study therefore, aims to (1) develop Radin Jambat Creative Puppetry as a culturally grounded literacy medium; (2) examine its feasibility based on expert validation of content, language, and media design; (3) evaluate its practicality from the perspectives of teachers and students; and (4) assess its effectiveness in improving literary literacy among elementary students.

■ METHOD

Participants

The participants were 62 fourth-grade students from two public elementary schools in Bandar Lampung, Indonesia: SDN 1 Sangga Buana (32 students) and SDN 3 Mataram Udik (30 students). The selection process employed a criterion-based purposive sampling strategy, which is recommended in educational development research where contextual appropriateness is prioritized over statistical generalization (Creswell & Creswell, 2018; Fraenkel, Wallen, & Hyun, 2019).

Table 1. Demographic details

Variable	SDN 1	SDN 3
Gender	17 boys, 15 girls	16 boys, 14 girls
Age	9–10 years	9–10 years
SES background	Mostly lower–middle	Mixed lower–middle
Baseline literacy score (mean)	58.2	55.4

Schools were selected based on documented low performance in literary literacy during preliminary diagnostics, the absence of multimodal or puppetry-based learning media, comparable demographic profiles, and teachers' willingness to participate in instructional innovation. Students were aged 9–10 years with a balanced gender distribution and predominantly lower–middle socio-economic backgrounds. Initial pretest scores indicated low levels of literary literacy, justifying the need for intervention.

Research Design & Procedures

The development of the Radin Jambat Creative Puppetry followed the ADDIE instructional design model, which is commonly used for structured and iterative development of educational media (Branch, 2009; Molenda, 2003). According to Reiser and Dempsey (2017), instructional design models such as ADDIE are particularly appropriate for developing educational media intended for classroom implementation because they provide a structured yet flexible framework for iterative refinement and validation. In the analysis phase, classroom observations, teacher interviews, curriculum reviews, and diagnostic literacy assessments were conducted to identify students' learning needs. Needs assessment is considered a foundational component of instructional design because it ensures alignment between learner characteristics and the instructional product (Merrill, 2013).

The design phase involved developing the Radin Jambat narrative script, creating a visual storyboard, and designing puppet characters that incorporated essential elements of Lampung culture. Storyboarding is recognized as an effective technique for ensuring sequence coherence and message clarity in multimedia instructional materials (Clark & Mayer, 2016). Instruments for expert validation, practicality testing, and literacy assessment were also designed in this phase. In the development phase, the puppetry prototype was produced using reinforced synthetic leather to ensure durability, consistent with standard guidelines for physical instructional media (Gagné et al., 2020). Digital illustrations were refined to enhance visual clarity and cultural authenticity. The prototype was subsequently evaluated by experts in content, language, and media design. Expert review is an essential step in R&D methodologies to ensure the validity and feasibility of newly developed instructional materials (Gall, Gall, & Borg, 2010).

During the implementation phase, the intervention was conducted in three instructional sessions. This implementation employed a pre-experimental one-group pretest–posttest design, a widely acknowledged approach in school-based innovation studies where random assignment is often impractical (Cook & Campbell, 2015). The intervention consisted of three instructional sessions, each lasting 2×35 minutes, following a structured protocol to ensure consistency across classrooms. The procedures were designed collaboratively with classroom teachers and aligned with principles of multimodal and dialogic literacy instruction.

The intervention was implemented over three instructional sessions, each lasting approximately 70 minutes. At the beginning of each session, teachers activated students' prior knowledge by initiating short discussions about folktales and local cultural traditions. Learning objectives were communicated to orient students toward narrative elements such as plot, characters, conflict, and moral values.

The main instructional activity involved storytelling using the Radin Jambat Creative Puppetry. Teachers performed the story following a standardized storyboard and script to ensure consistency across classrooms. Puppet manipulation, voice modulation, and visual gestures were deliberately employed to highlight key narrative events, character traits, and conflicts, allowing students to externalize abstract story elements through visual and embodied representations.

Throughout the storytelling process, teachers facilitated guided discussions using structured questioning strategies. These questions encouraged students to predict upcoming events, infer character motivations, analyze cause–and–effect relationships, and reflect on moral values. Students were required to justify their responses using evidence from the story, fostering deeper interpretive engagement.

Students actively participated during the sessions through interactive activities, including reenacting short scenes using simplified puppets, reconstructing plot sequences in small groups, and collaboratively identifying narrative elements. The sessions concluded with reflective discussions in which teachers summarized key lessons and connected the story's moral values to students' everyday experiences.

Prior to implementation, teachers received orientation on puppet operation, storyboard use, and facilitative questioning techniques to ensure fidelity to the instructional protocol. Student engagement during the intervention was both observational and participatory, supporting cognitive, affective, and cultural dimensions of literary literacy development.

Teachers narrated the Radin Jambat story through puppetry and facilitated discussions to support students' identification and interpretation of the story's intrinsic elements. Students completed a pretest prior to the intervention and a posttest after the final session. Teacher and student practicality questionnaires administered at the end of the implementation process.

The evaluation phase integrated formative evaluation from expert feedback and preliminary trials, as well as summative evaluation through statistical analyses of learning outcomes. This dual approach aligns with recommended practices for evaluating the effectiveness and usability of educational innovations (Richey & Klein, 2014).

Instruments

Three main instruments were used in this study: a literary literacy test, expert validation sheets, and teacher–student practicality questionnaires. The literary literacy test was a self-developed cognitive test comprising 20 multiple-choice items, each with 4 response options. The test was designed to measure students' comprehension of narrative elements in the folktale Radin Jambat, aligned with the Indonesian elementary curriculum and established theories of narrative comprehension.

Literary Literacy Test

The test measured five indicators of literary literacy: plot understanding, character comprehension, setting identification, conflict recognition, and moral value inference. Table 2 presents the indicators, constructs, and item distribution.

Table 2. Test indicators and number of items

Indicator	Description of Construct Measured	No. of Items	Item Numbers
1. Plot understanding	Ability to identify the sequence of events (orientation, complication, resolution)	5 items	1, 2, 3, 4, 5
2. Character comprehension	Ability to identify protagonist/antagonist, character traits, and motivations	4 items	6, 7, 8, 9
3. Setting identification	Ability to identify place, time, and socio-cultural context	3 items	10, 11, 12
4. Conflict recognition	Ability to recognize internal and external conflicts	4 items	13, 14, 15, 16
5. Moral value inference	Ability to infer explicit and implicit moral messages	4 items	17, 18, 19, 20

The plot understanding indicator assessed students' ability to identify the sequence of narrative events, including orientation, complication, and resolution. An example item required students to determine the event that logically followed Radin Jambat's decision to

defend his people, focusing on students' understanding of narrative progression rather than factual recall.

Character comprehension measured students' ability to identify protagonists and antagonists, recognize character traits, and infer motivations. A representative item asked students to explain the main reason behind Radin Jambat's actions when facing injustice, emphasizing inferential reasoning based on textual evidence. Setting identification evaluated students' understanding of place, time, and socio-cultural context. An example item prompted students to identify the cultural environment in which most events occurred, requiring them to connect narrative details with contextual cues embedded in the story. Conflict recognition focused on students' ability to distinguish internal and external conflicts within the narrative. A sample item required students to identify the central conflict faced by Radin Jambat and explain its impact on the storyline.

Moral value inference assessed students' capacity to infer both explicit and implicit moral messages. An example item invited students to identify the moral lesson reflected in Radin Jambat's decisions actions throughout the story.

Test construction followed established principles of educational measurement and was reviewed by three experts. Content validity was evaluated using Aiken's V, yielding values between 0.86 and 0.93, while Content Validity Ratio (CVR) values ranged from 0.67 to 1.00, meeting recommended thresholds (Aiken, 1985; Lawshe, 1975). Reliability testing via a pilot administration yielded a Cronbach's alpha of 0.82, indicating high internal consistency (DeVellis, 2017).

Expert Validation Instruments

Three expert validation sheets were used to assess the content, language, and media design of the developed puppetry. Indicators and item distribution are presented in Table 3.

Table 3. Indicators and number of items

Expert Domain	Indicators Assessed	Total Items
Content Validation	Relevance to competencies, accuracy of narrative structure, coherence of moral values, and developmental appropriateness	15 items
Language Validation	Readability, clarity, vocabulary level, grammar accuracy, appropriateness for grade-4 learners	12 items
Media Design Validation	Visual clarity, color harmony, ergonomic size, puppet movement feasibility, and cultural authenticity	10 items

Practicality Questionnaires (Non-Test Instruments)

Two non-test questionnaires were used to assess practicality during implementation:

Teacher Practicality Questionnaire (8 items)
Student Practicality Questionnaire (28 items)

All practicality instruments employed a four-point Likert scale and demonstrated acceptable

Table 4. Teacher practicality questionnaire

Indicator	Description	No. of Items
T1. Instructional clarity	Clarity of instructions, ease of implementation	2
T2. Content relevance	Relevance to curriculum, alignment with learning goals	2
T3. Support for learning	The ability of puppetry to facilitate comprehension	2

T4. Technical usability	Ease of operating puppets, durability	1
T5. Acceptance & readiness	Teacher willingness to reuse the media	1

Table 5. Student practicality questionnaire

Indicator	Description	No. of Items
S1. Visual appeal	Attractiveness of puppets, interest in story	8
S2. Comprehension support	Easiness to understand characters, plot, and conflict	8
S3. Engagement & motivation	Enthusiasm, confidence, and enjoyment in learning	6
S4. Ease of interaction	Clarity of instructions, comfort in participating	6

reliability coefficients ranging from 0.85 to 0.88 (Taber, 2018).

Data Analysis

Data were analyzed using descriptive and inferential statistical procedures commonly recommended in contemporary educational research. Descriptive statistics, including means, standard deviations, and normalized gain (N-Gain) classifications, were used to summarize the general patterns of students' pretest and posttest performance. The use of N-Gain categories follows widely accepted practices in learning-outcome evaluation, particularly for interventions aimed at measuring improvement across instructional cycles (Bao, 2006).

To determine whether the puppetry intervention produced statistically meaningful differences in students' literary-literacy scores, a paired-sample t-test was employed. This procedure is appropriate for repeated-measures designs where the same group of learners is assessed before and after instruction (Field, 2018). Effect size values were computed to estimate the magnitude of change, following established benchmarks for interpreting practical significance in educational studies (Cohen, Manion, & Morrison, 2018). These analyses allowed the study to move beyond statistical significance and examine the substantive improvement in outcomes resulting from the intervention.

Instrument quality was examined through both validity and reliability procedures. Content validity indices, including Aiken's V and the Content Validity Ratio, were interpreted based on established psychometric guidelines to ensure that items reflected the intended constructs (Aiken, 1985; Lawshe, 1975). Reliability was assessed using internal consistency coefficients, interpreted according to standards in scale development, where values above .70 indicate acceptable consistency (DeVellis, 2017; Taber, 2018). Together, these analytic procedures provided a comprehensive evaluation of the feasibility, practicality, and effectiveness of the Radin Jambat Creative Puppetry.

■ **RESULT AND DISCUSSION**

Media Development Results

The development of the Radin Jambat Creative Puppetry followed the ADDIE framework and resulted in a culturally grounded literacy medium designed to support elementary students' narrative comprehension. The developed product consists of: (1) three main puppets, Radin Jambat, Putri Betik Hati, and the *Gunungan (kayon)*, designed using Lampung Pepadun aesthetic elements; (2) reinforced synthetic leather materials to ensure durability and ergonomic manipulation; (3) culturally authentic ornamentation, including *siger, tapis* motifs, and Lampung carriage icons; (4) a storyboard and narrative script structured according to

orientation–complication-resolution; and (5) a teacher guidebook containing facilitative questioning strategies, session protocols, and assessment prompts.

This development is consistent with instructional design principles that emphasize alignment among learning objectives, media features, and learner characteristics (Branch, 2009; Merrill, 2013). By adapting the Lampung folktale Radin Jambat, the medium embeds culturally resonant narrative elements that can activate students' prior knowledge and cultural schemas, which are known to support deeper narrative comprehension (Paris & Alim, 2017; Perfetti & Helder, 2022).

From a literacy perspective, puppetry functions as a semiotic mediator that integrates visual, gestural, and spatial modes of meaning-making (Kress, 2010). For learners in the concrete operational stage, the tangible and manipulable nature of puppets provides concrete representations that support higher-order narrative reasoning. This mechanism aligns with findings that storytelling enriched with visual cues enhances narrative recall and depth of comprehension (Lwin, 2019). Compared to many existing puppetry-based or text-centered literacy tools, which often rely on generic figures or decontextualized narratives, the present medium embeds region-specific folklore and systematically integrates multimodal cues to reduce cognitive load (Mayer, 2021). To evaluate instructional quality, three experts assessed the content, language, and media design using a four-point rating scale.

Expert validation results indicate a very high level of feasibility across all components. Content feasibility reached 92%, reflecting a coherent
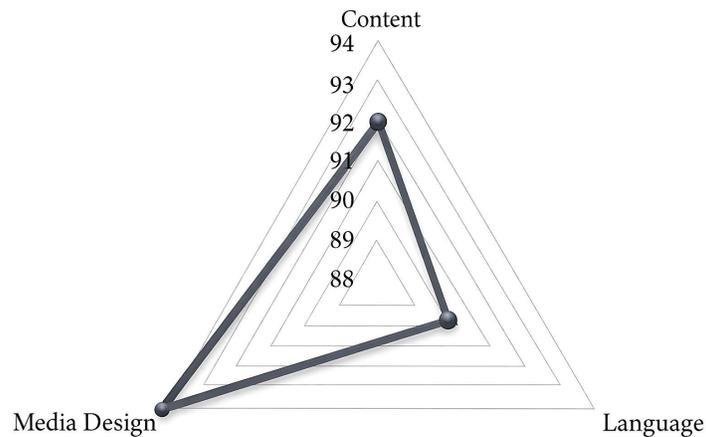

Figure 1. Expert validation scores of the puppetry media

narrative structure, strong moral values, and alignment with curriculum-based literacy objectives. Language feasibility reached 90%, indicating appropriate sentence structure, vocabulary load, and readability for fourth-grade learners, with a recommendation to include a brief glossary for culturally specific terms. Media design received the highest score (94%), highlighting visual clarity, balanced color composition, proportional character design, and culturally authentic ornamentation. Collectively, these findings demonstrate that the developed puppetry medium meets established standards for instructional quality and is suitable for classroom implementation (Tompkins, 2021; Lee & Hannafin, 2016).

Beyond its physical design, the development of the *Radin Jambat* Creative Puppetry reflects key principles of multimodal and culturally responsive instructional design. The integration of visual symbolism, embodied movement, and narrative sequencing allows abstract literary concepts, such as plot structure and character motivation, to be externalized into

concrete representations. This design choice aligns with multimedia learning theory, which posits that learners construct deeper understanding when information is presented through coordinated verbal and visual channels (Mayer, 2021). In addition, embedding local folklore within the media design activates students' cultural schemas, enhancing relevance and meaning-making in narrative comprehension (Paris & Alim, 2017). The *Blak* Puppet Form and Appearance are shown in Table 6.

Pilot Study Results

The pilot study focused on examining the practicality and initial classroom feasibility of the puppetry medium. Teacher responses indicated

Table 6. *Blak* puppet form and appearance

Character Name	Blak/Shape Design	Description
Gunungan (kayon)		Basic shape: *kayon klowong kreasi.* Appearance: a pair of traditional Lampung Pepadun bride and groom, a royal carriage pulled by twin dragons, an umbrella, and a *Pepadun siger*
Radin Jambat		Body shape: *bambangan* puppet (55 cm) Visual appearance: modified *Raden Janaka wanda ruruh* puppet depicting a refined and noble character
Putri Betik Hati		Body shape: *putren* puppet (50 cm) Visual appearance: modified *Sembadra* puppet.

a very high level of practicality, with an average score of 93%. Teachers reported that the medium was easy to use, well-structured, and effective in delivering literary content. They also noted that the puppetry format helped sustain students' attention and facilitated guided discussions on narrative elements such as characters, plot development, and moral values.

Students similarly demonstrated high acceptance of the medium, with an average practicality score of 91%. Students reported that the puppet characters were visually appealing and easy to distinguish, while the storyline was engaging and enjoyable. Importantly, students perceived that the puppetry presentation supported their understanding of narrative structure, conflict, character roles, and embedded moral messages. It shows that both respondent groups rated the puppetry media highly across all assessed dimensions, with teacher ratings slightly higher than student ratings. This visualization enables a direct comparison of perceptions and confirms consistency between teacher usability judgments and student learning experiences, addressing concerns about the data's interpretability. Teachers further emphasized that the analog, low-technology design reduced operational barriers and enhanced instructional flexibility, supporting arguments that culturally grounded, low-tech media can empower teachers while maintaining pedagogical effectiveness (Potgieter & Van der Walt, 2021; Ladson-Billings, 2021). From the students' perspective, high engagement appears linked to cultural familiarity, consistent with identity-based motivation theory (Oyserman, 2015).

Effectiveness Test Results

Students' literary literacy was examined through pretest–posttest comparisons across five indicators: character, plot, setting, conflict, and moral value.
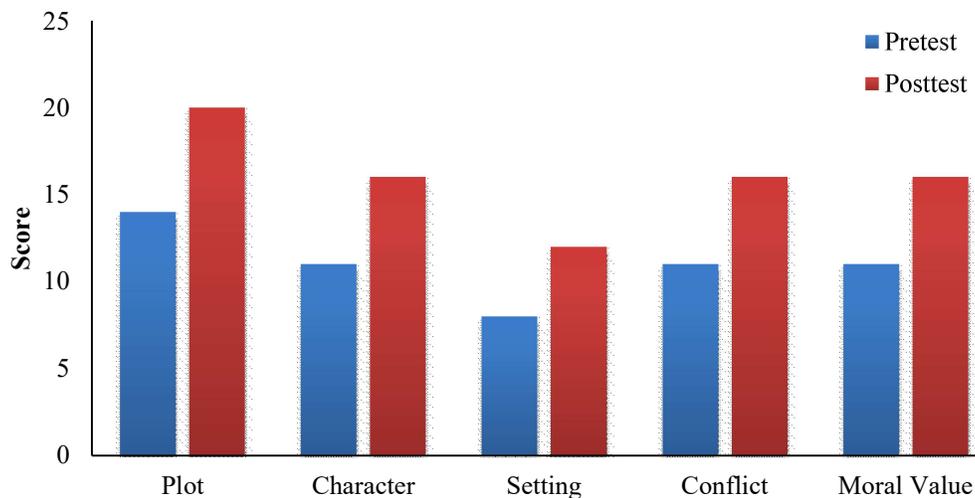

Figure 2. Students literary literacy across five indicators (pretest–posttest)

Figure 2 shows consistent improvement across all indicators. Plot comprehension increased most prominently, followed by character, conflict, and moral value, while setting also demonstrated a clear upward trend. The relatively proportional improvement across indicators suggests that the puppetry medium supported narrative comprehension in a balanced manner rather than benefiting only specific components. This pattern aligns with multimodal learning theory, which posits that coordinated visual–verbal cues enhance comprehension across multiple dimensions of text processing (Clark & Mayer, 2016).

At the overall level, mean scores increased from 56.9 (pretest) to 82.0 (posttest), indicating a strong upward learning trend. At the school level, SDN 1 gained 25.5 points, while SDN 3 gained 24.8 points. These gains correspond to medium-to-high normalized gain categories (0.63 and 0.58, respectively) according to Hake's (1998) framework. Inferential analysis further indicated a statistically significant difference between pretest and posttest scores, $t(61) = 14.27$, $p < .001$, with a large effect size ($d = 1.21$). Given the one-group pretest–posttest design, these findings should be interpreted as indicative of positive learning trends, rather conclusive causal effects.
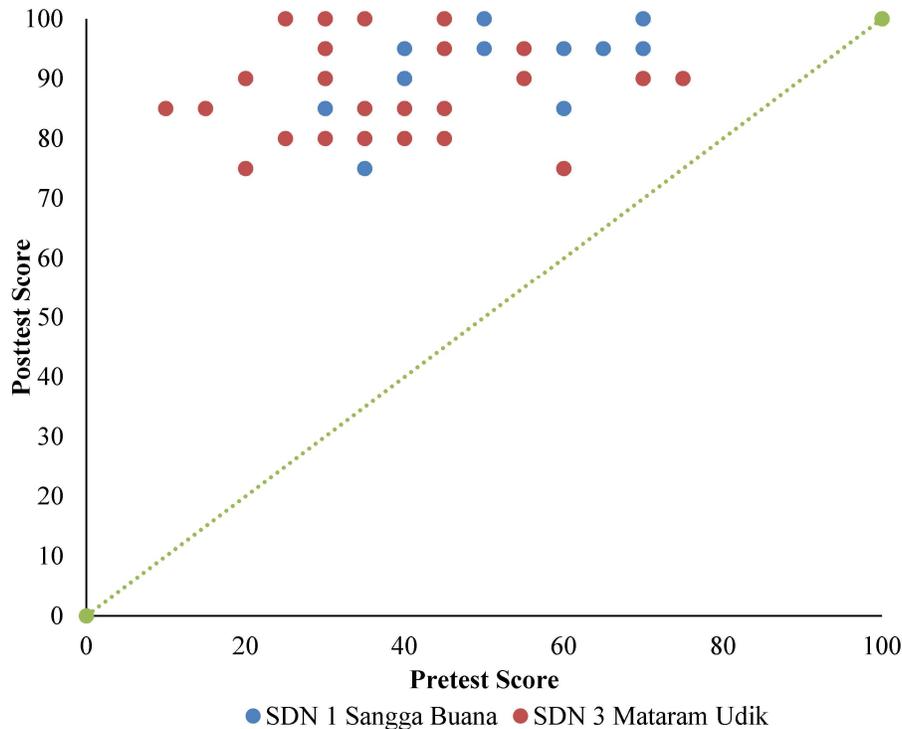

Figure 3. Combined scatter plot: pretest–posttest scores (SDN 1 & SDN 3)

Figure 3 illustrates individual students' pretest and posttest scores from both schools using a combined scatter plot with a diagonal gain reference line ($y = x$). Data points predominantly appear above the reference line, indicating learning gains for nearly all students. The distribution confirms that improvements occurred consistently across schools, supporting the robustness of the observed learning trends.

To complement the quantitative findings and address the limitations of multiple-choice tests, qualitative data were collected from twelve purposively selected students through short written responses. Thematic analysis revealed three dominant patterns: improved reconstruction of chronological events, enhanced explanation of character motivations, and more frequent connections between story morals and personal experiences. These findings support the theory of mental model updating, suggesting a shift from surface-level recall toward deeper narrative interpretation (Kendeou et al., 2016). Observational notes suggest variation in instructional mediation, such as the frequency of elaborative questioning, which has been shown to influence inferential comprehension (McKenney & Mor, 2015). However, these contextual factors are presented as interpretive possibilities rather than definitive explanations.

The observed improvements in students' literary literacy can be understood through the interaction of multimodal representation, cultural

relevance, and guided interpretive dialogue. The puppetry medium externalizes narrative structures, such as plot progression, character relationships, and conflict development, into visual and embodied forms, thereby reducing cognitive load and supporting mental model construction (Mayer, 2021; Kendeou et al., 2016). Moreover, structured, facilitative questioning during storytelling sessions encouraged students to engage in prediction, inference-making, and moral reflection, processes that are central to deeper narrative comprehension (Duke & Cartwright, 2021). These mechanisms help explain why learning gains were consistently observed across both schools, even though the study design does not allow for causal claims.

Implications for Practice

The findings indicate that culturally grounded, multimodal media such as puppetry can support narrative comprehension by externalizing story elements through coordinated visual, verbal, and gestural modes. For teachers, the medium offers a low-tech yet pedagogically meaningful tool that aligns with culturally sustaining pedagogy and multimodal learning principles (Mayer, 2021). At the school level, integrating local folklore into literacy instruction may enhance motivation and cultural identity while supporting curriculum initiatives such as *Merdeka Belajar*.

Limitations of the Study

This study employed a one-group pretest–posttest design, limiting internal validity and preventing causal conclusions. The short intervention duration restricts insights into long-term retention, and the limited sample reduces generalizability. Additionally, reliance on multiple-choice assessments may not fully capture deeper interpretive abilities. Future research should incorporate control groups, extended interventions, and mixed-method assessments.

Taken together, the findings suggest that the effectiveness of the Radin Jambat Creative Puppetry is not solely attributable to its novelty or visual appeal, but to the deliberate alignment between cultural content, multimodal design, and pedagogical scaffolding. This alignment supports contemporary views of literary literacy as a meaning-making process that integrates cognitive, affective, and cultural dimensions. As such, the media demonstrates potential as a pedagogically grounded tool for developing literary literacy in elementary education.

■ CONCLUSION

This study developed, validated, and implemented Radin Jambat Creative Puppetry as a culturally grounded instructional medium to improve elementary students' literary literacy. Expert validation suggested the medium's high feasibility in content, language, and visual design. Teacher and student responses demonstrated strong practicality, indicating that the medium is accessible, engaging, and supportive of instructional processes. Significant improvements in pretest–posttest scores, medium-to-high N-Gain values, and a large effect size suggest that the medium holds strong potential to enhance students' comprehension of narrative elements. The improvements observed can be attributed to the synergy of multimodal presentation, affective engagement, and cultural relevance. However, due to the pre-experimental design, the findings should be interpreted as indicative rather than conclusive. Future research should involve comparison groups, longer intervention periods, and broader literacy outcomes to establish stronger evidence of effectiveness.

The Radin Jambat Creative Puppetry demonstrates promising potential as a culturally grounded instructional medium that may support improvements in students' literary literacy. Expert validators rated the medium as showing potential usefulness, and teachers and students found it practical and engaging. Although pretest–posttest trends indicate positive learning, the design does not permit causal claims. Thus, findings should

be interpreted as preliminary indications of potential usefulness. Future studies employing stronger experimental methods are recommended to more conclusively examine the medium's influence on literacy outcomes.

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