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Stories in motion: integrating project-based digital-literary-platforms and tri-n-pedagogy to foster narrative writing in primary education

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Keywords:	Abstract
digital literary platform; narrative writing; primary education; project-based learning; tri-n philosophy	Narrative writing in Indonesian primary education remains underdeveloped and insufficiently supported, constrained by limited access to culturally grounded digital resources and pedagogical models. This research develops a digital literary platform and instructional module that integrates Project-Based Learning (PjBL) with the Tri-N philosophy, an experiential framework inspired by Ki Hajar Dewantara's educational thought. Mixed-methods data were collected through surveys, interviews, document analysis, writing assessments, and classroom observations with 58 students across three schools. Quantitative analysis (independent sample t-tests) revealed significant improvements in students' narrative writing performance, while qualitative findings highlighted increased engagement, creativity, and agency. The platform's multimodal features, including interactive texts, student-generated content, audio narratives, and automated feedback, facilitated differentiated learning and collaborative composition. By explicitly framing Stories in Motion as a novel pedagogical framework, this research emphasises both its technological design and its empirical impact. This contribution offers a replicable model that integrates local philosophy with responsive technology, strengthening literacy outcomes while positioning Indonesian classrooms within global debates on digital narrative pedagogy. Ultimately, Stories in Motion fosters narrative writing in primary education by bridging pedagogy and technology.



INTRODUCTION

Background of the Research

Character-enriched digitalisation in education, particularly within the framework of Industry 4.0 and Society 5.0, is no longer optional. It is a foundational imperative. Literacy instruction must evolve beyond technical proficiency to embrace contextual meaning-making rooted in students' lived experiences. This pedagogical shift reflects national directives such as Indonesia's Long-Term National Research Plan (RIRN 2017–2045) and the forthcoming Medium-Term National Development Plan (RPJMN 2025–2029), both of which emphasise social transformation through culturally grounded education. Despite these strategic visions, Indonesia continues to face a critical literacy gap, as evidenced by its ranking of 60th out of 61 participating countries in the Programme for International Student Assessment. Students with limited reading comprehension often struggle to think critically, innovate, and make informed decisions, underscoring the urgency of designing instructional strategies (Weerawong et al., [2025](#)) that are both effective and contextually relevant.

Within the Bahasa Indonesia curriculum, one of the core competencies in Phase C is narrative writing. Among all language skills, writing is considered the most cognitively demanding, as it requires mastery of linguistic structures and the ability to organise events coherently (Zhang & Ouyang, [2023](#)). It fosters creativity, initiative, and the capacity to process and communicate information. However, many educators report persistent challenges in teaching narrative texts, citing a lack of cohesive (Ayu et al., [2024](#)) and engaging instructional materials. A survey conducted in Kaloran District revealed that 94% of respondents lacked access to textbooks or digital resources, while 88% expressed a need for literary text materials. Even in classrooms equipped with printed resources or reading corners, utilisation remained minimal. Interviews further indicated that literary texts were preferred for their richness, diversity, and potential to stimulate

Digital Literary Platforms represent a strategic pedagogical innovation in response to the evolving demands of literacy education (Wedasuwari et al., [2024](#)). By leveraging web-based literary materials, these platforms foster conceptual understanding (Dewi, [2025](#)) and textual engagement (Bodén et al., [2023](#)) through interactive and multimodal experiences. While they enhance accessibility, learner autonomy, and motivation, they also present challenges (Ribahan & Muslimin, [2025](#)) such as digital distraction, infrastructural disparities, and the need for culturally responsive design.

This research develops the integration of Project-Based Learning (PjBL) with Ki Hajar Dewantara's Tri-N framework: *Niteni* (observe), *Nirokke* (replicate), and *Nambahi* (modify or create) within web-based instructional modules. PjBL has demonstrated its potential to enrich literacy instruction by connecting technological tools with real-world contexts and school-based projects (Hanifah, [2024](#); Nguyen, [2025](#)). The Tri-N stages, echoed in the ATM model (*Amati-Tiru-Modifikasi*), cultivate a participatory classroom environment that emphasises observation, imitation, and creative transformation (Hafid et al., [2022](#)).

In the context of Indonesian primary education, meaning-making through literary texts (Mardi et al., [2025](#)) requires adaptive strategies that respond to technological shifts and evolving curricular demands. Developing web-based literary teaching materials that embed both Project-Based Learning (PjBL) and the Tri-N framework is essential for enhancing students' reading literacy and narrative competence. This approach not only addresses the scarcity of accessible and culturally grounded resources but also offers a scalable model for revitalising literacy (Handari et al., [2024](#); Kristiyani, [2023](#)) instruction through dynamic, context-sensitive digital ecosystems. Accordingly, this research designs instructional modules (Nurhaedah & Achmad, [2025](#)) that activate *stories in motion* as a pedagogical pathway for experience-driven meaning-making, integrating local educational philosophy with participatory digital learning. The problem addressed in this research is the absence of a pedagogically grounded, culturally responsive digital platform that fosters narrative writing in Indonesian primary classrooms. At the global level, debates on digital narrative literacy highlight tensions between technological innovation and culturally grounded pedagogy. This research situates Indonesian primary education within these debates, contributing a culturally responsive model that integrates Project-Based Learning and Tri-N pedagogy.

The Problem of The Study

National and international education frameworks increasingly emphasise digital integration and character-based literacy development as core priorities for 21st-century learning (Jordan et al., [2025](#)). However, Indonesian primary classrooms remain underserved by modular, web-based instructional tools that reflect these pedagogical aspirations (Jamilah et al., [2021](#); Marmoah & Wardani, [2023](#)). Despite the growing engagement of students with digital media and multimedia platforms (Yulian & Ruhama, [2021](#)), the availability of online literature modules and narrative writing resources remains significantly limited (Farhana et al., [2021](#); Rusmani & Asnawi,

2023). Moreover, instructional materials that integrate Project-Based Learning (PjBL) with the Tri-N framework *niteni* (observe), *nirrokke* (replicate), and *nambahi* (modify or create) are rarely found in current classroom practice (Leony et al., 2024; Suliyanti & Rochmiyati, 2023), thereby restricting opportunities for culturally rooted creativity and collaborative learning (Halimah et al., 2024)

Fragmented narrative instruction (Anaktototy, 2023), limited student engagement (Putri et al., 2024), and uneven literacy outcomes (Amelia et al., 2024) continue to characterise many classrooms, particularly in the research target region, where resources are limited. Teachers report a lack of flexible, field-ready modules that support meaningful literary exploration and accommodate diverse learning needs (Kaloran Subdistrict Survey, 2023). Simultaneously, curriculum reforms often remain abstract at the implementation level, leaving educators without practical tools to enact pedagogical change (Ralebese et al., 2025; Revina et al., 2023). The core issue is not merely technological access, but the absence of a responsive design framework, one that bridges digital functionality, literary depth, and character development within a coherent and culturally relevant learning ecosystem. In this context, a pedagogical approach is needed that enables literary texts to move dynamically within the classroom (*stories in motion*) and facilitates active, contextual, and experience-based meaning-making among primary school students. This research addresses the lack of a pedagogically grounded, culturally responsive digital platform to foster narrative writing in Indonesian primary classrooms.

Research's State of the Art

This research is grounded in five interrelated strands of literature that collectively inform its conceptual framework and pedagogical design:

Digital Literary Materials and Multimodal Literacy are well established in expanding access through visual, auditory, and interactive modes. However, most literary teaching materials in primary education remain static and text-heavy, limiting students' ability to engage with texts in ways that reflect contemporary communication practices (Nisa & Wulandari, 2024). Multimodal literacy theory is established as a framework for meaning-making across modes (Shi, 2025), yet unresolved challenges remain because few platforms operationalise this theory to scaffold narrative writing or support differentiated learning (Hasiyatiningsih & Bahri, 2024).

Narrative Writing and Student Agency are recognised as critical cognitive and cultural acts that enable students to organise events, express emotions, and connect

stories to lived experience (Yusiana et al., [2024](#)). Research indicates that students often struggle with narrative coherence, emotional expression, and structural clarity (Siekmann et al., [2022](#)). This unresolved gap highlights the need for meaningful scaffolds (Marwiah et al., [2024](#)), since without them, narrative writing risks becoming mechanical and disconnected from personal relevance. Approaches that centre student agency, where learners become authors rather than passive responders, are essential to revitalising narrative instruction.

Project-Based Learning (PjBL) is established as an effective pedagogy for fostering inquiry, collaboration, and real-world relevance. In literacy education, PjBL transforms passive reading into active storytelling (Muslikhin et al., [2025](#); Oktavia et al., [2025](#)), encouraging students to engage with texts as both readers and creators (Lugossy et al., [2024](#)). Despite this established potential, PjBL remains underutilised in Indonesian literary contexts, particularly in digital formats. This unresolved issue underscores the importance of embedding PjBL into web-based modules to support sustained engagement and authentic authorship (Selano et al., [2024](#)).

Tri-N Pedagogy is philosophically established as a culturally grounded model for experiential learning, drawing from Ki Hajar Dewantara's framework of *niteni* (observe), *nirokke* (replicate), and *nambahi* (modify). This framework aligns with constructivist principles while honouring local wisdom and traditions (Sylvia et al., [2025](#); Turahmat et al., [2025](#)). Tri-N encourages students to engage reflectively with texts (Anggraeni et al., [2025](#); Fatoni, [2024](#)), moving from observation to imitation (Wulandari & Masjid, [2024](#)) and creative transformation (Fatoni, [2024](#); Nafisah et al., [2024](#)). Yet, despite its philosophical depth, Tri-N remains largely absent from digital learning environments, an unresolved gap that this research seeks to address by embedding Tri-N into digital narrative pedagogy.

Website-Based Learning Ecosystems are established as interactive platforms that enable inquiry, peer feedback, and progress visualisation (Marini et al., [2025](#)). A well-designed literary website can host texts, guide inquiry, enable peer feedback, and visualise student progress. However, unresolved challenges persist: most existing platforms lack responsiveness, cultural relevance, and pedagogical depth. This research responds to this gap by designing a platform that integrates multimodal access with culturally embedded instructional logic, supporting both student agency and teacher facilitation.

Novelty, Research Gap, & Objective

The novelty of this research lies in its fusion of culturally rooted pedagogy and responsive digital technology to address persistent gaps in literacy instruction. It introduces a scalable instructional model that embeds Ki Hajar Dewantara's Tri-N philosophy *niteni* (observe), *nirokke* (replicate), and *nambahi* (modify) alongside Project-Based Learning (PjBL) into a multimodal digital platform. This platform features illustrated literary texts, audio-based storytelling, interactive rubrics, and student-generated content, all designed to activate narrative competence and foster reflective authorship among primary school learners.

The research gap addressed by this research is the absence of validated, culturally resonant digital modules for narrative writing in Indonesian elementary education. While digital literacy tools have proliferated globally, few are tailored to the linguistic, philosophical, and curricular contexts of Indonesian classrooms. Existing platforms often lack narrative scaffolding, student agency features, and integration with pedagogical models such as Tri-N and PjBL. Moreover, empirical studies on the effectiveness of such integrations remain scarce, particularly in non-urban or resource-limited settings.

This research introduces the concept of "Stories in Motion" as a dynamic pedagogical framework that integrates the Tri-N educational philosophy (*niteni*, *nirokke*, *nambahi*) with Project-Based Learning (PjBL) to enhance narrative literacy in Indonesian primary education. The digital module developed does not merely present texts; it activates narrative as a space for movement, reflection, and creation, positioning students as observers, conscious imitators, and meaning-makers.

The objective of this research is to design, develop, and evaluate web-based literary teaching materials and instructional modules that (1) enhance reading literacy through multimodal engagement, (2) foster student agency by positioning learners as active authors and collaborators, and (3) promote culturally grounded learning by embedding local educational philosophy into digital narrative pedagogy. Through this approach, the research aims to contribute both theoretically and practically to the advancement of literacy education in Indonesia and beyond.

METHOD

Type and Design

This research adopted a Research and Development (R&D) methodology to produce pedagogically validated teaching materials for literacy instruction in

Indonesian primary schools. The process was guided by the ADDIE model, which consists of five iterative phases: Analysis, Design, Development, Implementation, and Evaluation (Farhana et al., [2021](#); Wahyudin et al., [2024](#)). The research focused on developing two integrated products: a web-based literature module and a narrative writing module for sixth-grade students. Both modules were designed to incorporate Project-Based Learning (PjBL) and the Tri-N pedagogical principles *niteni* (observe), *nirokke* (replicate), and *nambahi* (modify or create) to foster culturally grounded and student-centred literacy practices.

Ethical approval was obtained from the Faculty Research Ethics Committee, and informed consent was secured from participating schools, teachers, and students prior to data collection. Procedural narration is streamlined here to emphasise analytical relevance rather than step-by-step detail.

The analysis phase involved a comprehensive needs assessment conducted across seven elementary schools in Kaloran Subdistrict, Temanggung Regency, Central Java: SDN 2 Getas, SDN 3 Getas, SDN 4 Getas, SDN 1 Tleter, SDN 2 Tleter, SDN Kwarakan, and SDN Tlogowungu. Data collection instruments are condensed to highlight their contribution to validity: semi-structured interviews captured perspectives of principals, teachers, and students; classroom observations documented pedagogical practices; curriculum reviews ensured policy alignment; and diagnostic literacy assessments measured baseline competencies.

During the design phase, interactive digital materials and web-based modules were constructed based on field data. Validation instruments were developed to assess instructional quality, cultural relevance, and usability. The development phase involved expert reviews by educational practitioners and media specialists. Revisions were iteratively conducted to strengthen contextual fit and pedagogical integrity, underscoring analytical logic rather than procedural detail.

The implementation phase included a limited trial at SDN 3 Getas involving 18 students, followed by a broader trial with two comparison groups: SDN Tlogowungu (control group, 20 students) and SDN 1 Kaloran (experimental group, 20 students). Instructional effectiveness was evaluated through a pre-post intervention design and independent t-tests, focusing on how these techniques contributed to the validity of findings. The evaluation phase incorporated post-trial reflections with participating teachers to identify pedagogical and technical refinements, supporting continuous improvement and future scalability of the modules.

Data and Data Sources

In this research, data refer to factual information used to examine and answer the research questions concerning literacy instruction and pedagogical design. Narrative was condensed to emphasise the analytical relevance of each source. Primary data were obtained through semi-structured interviews with sixth-grade students, classroom teachers, school principals, and curriculum experts; direct classroom observations; and standardised literacy assessments. These instruments captured instructional practices, learner engagement, and literacy outcomes. Secondary data consisted of curriculum documents, textbooks, instructional plans, and printed materials available in school libraries and administrative archives. Each source was selected for its contribution to methodological rigour and contextual grounding, ensuring relevance to the research objectives.

Table 1. Exploratory Data Dimensions in “Stories in Motion”

Exploration Focus	Data Type	Contextual Source
Student meaning-making through narrative	Narrative writing samples, revision drafts, diagnostic literacy assessments	SDN 3 Getas, SDN Tlogowungu, SDN 1 Kaloran (Grade 6 students)
Cultural grounding in digital modules	Audio narratives, local literary texts, student-generated content	Web-based literature module; Tri-N integration (<i>niteni, nirokke, nambahi</i>)
Pedagogical responsiveness	Teacher interviews, instructional plans, post-trial reflections	Classroom teachers and school leadership across seven schools in Kaloran Subdistrict
Engagement with multimodal texts	Classroom observations, platform usage logs, and feedback interactions	Implementation trials and digital platform analytics
Collaborative composition	Peer feedback artifacts, group writing outputs	PjBL-based classroom activities during module implementation
Instructional gaps and learner needs	Semi-structured interviews, curriculum reviews, and diagnostic literacy tools	SDN 2–4 Getas, SDN 1–2 Tleter, SDN Kwarakan, SDN Tlogowungu
Literacy outcomes and growth	Pre–post intervention scores, independent sample <i>t</i> -tests	Experimental and control group comparisons (<i>n</i> = 58 students)

Data Collection Technique

This research employed a mixed-method approach to obtain both qualitative and quantitative data relevant to literacy instruction. Techniques are summarised with emphasis on their role in validity: interviews explored instructional practices and learner experiences; observations documented classroom interactions; document analysis ensured curricular alignment; and standardised literacy

assessments measured performance shifts. All instruments were designed to identify instructional gaps, contextual needs, and preferences in narrative-based learning.

Data Analysis

The collected data were analysed using integrated qualitative and quantitative procedures. Analytical logic was prioritised over procedural narration: qualitative data were thematically coded to ensure systematic interpretation, while quantitative data were tested using independent t-tests to establish statistical significance. This dual-track analysis ensured triangulation and strengthened the validity and applicability of the research findings.

RESULTS

The results of this research are presented across four interrelated domains, each reflecting a distinct dimension of inquiry within the *Stories in Motion* framework. These domains are supported by both quantitative and qualitative data, highlighting the pedagogical, cultural, and technological impact of integrating Tri-N philosophy and Project-Based Learning (PjBL) into digital literacy instruction. The synthesised findings are presented in Tables 2 and 3, which consolidate key data from the implementation trials covering performance outcomes, learner engagement, instructional alignment, and multimodal platform contributions.

Table 2. Summary of Research Results

Narrative Writing Performance	Pretest–Posttest Scores (Limited & Main Trials) Statistical Analysis (Independent Sample <i>t</i> -Test)	Score increased from 63 to 82 (limited trial); 84.5 vs 66.5 in main trial Significant difference confirmed ($p = 0.000$)
Student Engagement	Student Questionnaires (n = 58) Student Descriptions	96% rated the platform easy and enjoyable; 93% felt more involved; 92% felt creative “Fun,” “easy to understand,” “like watching but also writing.”
Teacher Observations	Post-Trial Reflections & Ratings	Increased participation and comprehension; 95% rating for Tri-N and PjBL synergy
Pedagogical Integration	Module Design & Classroom Implementation Teacher Feedback	Tri-N stages operationalised: <i>niteni</i> , <i>nirrokke</i> , <i>nambahi</i> Structure supported diverse learners and aligned with local learning modes
Platform Features	Product Documentation & Classroom Use	Interactive texts, student-generated content, audio narratives, automated feedback

Classroom Observations	Enabled differentiated learning and collaborative composition
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Table 3 presents a unified framework that connects Tri-N stages and PjBL syntax to character formation and literacy outcomes through culturally grounded learning activities. It maps each story featured in the BERSINAR AMAN digital platform, a web-based literary learning product that includes curated narrative texts and a modular teaching guide to its core narrative theme, activated character indicators, and the Tri-N stages emphasised during instruction. Each story forms part of a culturally rooted literacy ecosystem, designed not only to engage students in reading but also to cultivate character through structured pedagogical processes. The table illustrates how narrative texts function as vehicles for character development when embedded within a responsive instructional design that integrates local philosophy (Tri-N) and project-based inquiry.

Table 3. Mapping Tri-N and PjBL to Character and Literacy

Tri-N Stage	PjBL Syntax	Learning Activities	Character Indicators	Literacy Outcomes	Data Source
<i>Niteni</i>	Essential Question	Students observe real-world issues and begin asking critical questions	Curiosity, cultural awareness, emotional resonance	Improved comprehension, contextual understanding	Student reflections, classroom observations
	Project Design	Planning based on what they see, think, and interpret	Initiative, critical thinking	Narrative structure awareness, relevance to lived experience	Instructional plans, student journals
<i>Nirokke</i>	Scheduling	Students replicate structures from similar projects and learn time management	Empathy, narrative awareness, moral reasoning	Structural fluency, moral reflection	LKPD responses, teacher interviews
	Project Monitoring	Adapting existing approaches to manage their own process	Responsibility, adaptability	Ownership of process, collaborative revision	Peer feedback, monitoring logs
<i>Nambahi</i>	Product Testing	Presenting original stories, solutions, or innovations	Creativity, autonomy, pride in authorship	Authorship, voice, originality	Student writing samples, classroom presentations
	Experience Evaluation	Reflecting on unique contributions	Self-awareness, agency,	Independent expression, reflective literacy	Post-task surveys,

and possibilities	future growth mindset	teacher reflections
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Across data sources, several dominant patterns consistently emerged. Quantitative findings indicated significant gains in literacy performance, with both limited and main trials showing notable score improvements supported by statistical validity. Qualitative evidence reinforced these results: students reported heightened engagement, creativity, and comfort with multimodal tasks, while teachers observed stronger participation, comprehension, and awareness of narrative structures. Synthesising across themes, the integration of Tri-N and PjBL within the *BERSINAR AMAN* module shifted literacy practices from passive, linear routines to dynamic, culturally grounded, and student-centred experiences. Collectively, these findings demonstrate that digital narrative instruction, when rooted in local philosophy and project-based inquiry, not only enhances measurable literacy outcomes but also fosters agency, creativity, and authentic character development.

DISCUSSIONS

The following discussion unpacks four interrelated themes that emerged from the implementation of the *BERSINAR AMAN* web module and the *Stories in Motion* framework. Each theme is discussed in turn, beginning with the pedagogical shift from linear literacy routines to dynamic, project-based narrative learning. This is followed by an exploration of students' multimodal engagement, highlighting how digital storytelling enhanced emotional connection and active participation. The third theme focuses on the development of narrative writing skills and literacy agency, showing how structured reflection and creation fostered original expression. Finally, the discussion considers the cultural and philosophical integration of Tri-N values, emphasising how local wisdom was embedded into classroom practice through narrative work.

This section not only describes the findings but also examines them through relevant learning theories and comparisons with prior studies, thereby clarifying the mechanisms behind the observed changes and positioning the results within international debates on literacy pedagogy.

Intervention Needs and Digital Module Design

Literacy practices in Kaloran's elementary schools have long followed a linear and repetitive pattern: students read a text, answer questions, and move on to the

next page, often without engaging in meaningful interpretation. Based on interviews with teachers and school principals, literacy activities remain heavily focused on reading comprehension, while writing and listening skills have yet to be systematically developed. Existing teaching modules also centre on reading activities, relying primarily on textbooks and student worksheets (LKS).

These findings align with those of others who observed that literacy practices at the elementary level are still dominated by memorisation and literal understanding, without extending into critical thinking or narrative expression (Ulfi et al., 2023). This is reinforced by a teacher's statement: "Teaching modules do exist, but they're still very limited and haven't focused on narrative writing skills. Most modules are geared toward reading and text comprehension."

Student questionnaire data further support these findings: only 20% of students reported enjoying literacy lessons, while 50% felt indifferent, and 30% admitted feeling bored. Regarding literary learning materials, 80% of students found them unengaging, and 95% had never used web-based resources. However, when asked whether they would agree to narrative writing materials being delivered digitally, all students (100%) responded positively. This reinforces the findings of Prawira et al. (2023), who emphasised the urgency of developing literacy materials that are contextually grounded and aligned with the interests of elementary students.

To address this need, the researcher designed a web-based literacy module titled *BERSINAR AMAN*, featuring 14 literary texts in an interactive e-book format. These texts include picture stories, fables, and short stories curated contextually to support character education and narrative literacy. The module integrates Project-Based Learning (PjBL) and the local educational philosophy *Tri-N* (niteni, nirokke, nambahi) as a contextual learning framework rooted in students' lived experiences.

The *niteni* feature allows students to select stories based on their interests, such as *Should I Give Up*, *Lala's Adventure and the Trash Washer*, *Falling Star*, *The Secret of the Golden Dakon*, *Come Fly with Me*, *The Friendship Kite*, *Chasing Hope*, *When It Rains*, *A Letter to Kayla*, *Trash Becomes a Blessing*, *Time Why Do You Pass So Quickly*, *Don't Waste It*, *Waiting for a Falling Star*, *The Most Precious Gift*, *Actually I Care*, and *Rafi the Runner*. These stories were designed using Canva and Leonardo AI, featuring engaging visuals and rich moral messages closely tied to students' everyday lives.



Figure 1. Stories in Motion from the BERSINAR AMAN Web

During interviews, students expressed that picture-based stories made them more engaged and helped them better understand the content of the texts, echoing the findings of (Rahma et al., 2023). One student even remarked, “I really hope we can write stories more often, Ma’am. And if we could use computers, it would definitely be more exciting and less boring.”

A limited trial conducted at SDN 3 Getas showed a notable improvement in students’ scores, rising from a pretest average of 63 to a posttest average of 82. Teachers reported that the learning process became more enjoyable and meaningful, with students showing greater enthusiasm in discussions and responding actively to story content.

In the main trial, the experimental class that used web-based learning materials achieved an average score of 84.5, significantly higher than the control class, which averaged only 66.5. Statistical analysis using an independent samples t-test yielded a p-value of 0.000, indicating that the difference was statistically significant.

Student Engagement and Multimodal Response

Beyond quantitative gains, student engagement in literacy learning was strongly reflected through qualitative indicators. Questionnaire results revealed that 96% of students found the website interface easy to use, and the media interactivity successfully captured their attention and enhanced their learning comfort. Students described the experience as “fun,” “easy to understand,” and “like watching something, but you get to write too.” Teachers also praised the digital materials as “more engaging and relevant to the kinds of developments students are interested in today.”

Multimodal engagement in the *BERSINAR AMAN* web and module was not merely the addition of visual elements or navigation features (Suprpto, 2021) but a pedagogical approach that animated the text, sparked curiosity, and connected stories to students' everyday lives. The module effectively transformed reading from a passive activity into a meaningful and reflective experience. Prior to the intervention, narrative writing activities in Grade VI were rarely conducted in a systematic manner. Teachers noted that "story writing was seldom done due to limited time and materials," while students admitted they had only written once or twice and only when prompted by the teacher. There was no dedicated space, supporting program, or system in place to encourage students to become active writers.



Figure 2. Tri-N and PjBL Integration in BERSINAR AMAN

Taken together, these findings illustrate how the integration of Tri-N and PjBL aligns with constructivist and multimodal literacy theories, while also extending prior studies (Rahma et al., 2023; Suprpto, 2021; Yusiana et al., 2024) by demonstrating mechanisms through which narrative agency and creativity emerge in digital contexts. This positions the results not only as a response to local literacy challenges but also as a contribution to international discourse on culturally responsive digital pedagogy.

Narrative Writing Engagement and the Emergence of Stories in Motion

Prior to the intervention, narrative writing activities in Grade VI were rarely conducted in a systematic manner. Teachers noted that "story writing was seldom practised due to limited time and materials," while students admitted they had only written once or twice and only when instructed by the teacher. There was no dedicated space, supporting program, or system in place to encourage students to become active writers.

This situation began to shift significantly with the implementation of the *BERSINAR AMAN* module. At SDN 3 Getas, students not only read picture-based stories but also began to emulate narrative structures through digital worksheets (LKPD), eventually composing their own stories. The *nirokke* feature guided students to respond to reflective prompts about characters, plotlines, and moral messages, while the *nambahi* stage encouraged them to write original stories and upload them via a digital platform. One student shared, “I really hope we can write stories more often, Ma’am. And if we could use computers, it would definitely be more exciting.”

Teachers involved in the trial observed that the module “helped students across varying ability levels develop their narrative writing skills.” The integration of the *Tri-N* philosophy with the Project-Based Learning (PjBL) approach received a score of 95%, indicating that the instructional design fostered active, reflective, and creative engagement. Students were not writing because they were told to—but because they had something meaningful to express (Tiasari et al., 2024; Yuniarto & Rochmiyati, 2022).



Figure 3. How to Write Narrative Texts Digitally

Quantitative findings supported these outcomes. In the limited trial, narrative writing scores rose from 63 to 82. In the main trial, the experimental class achieved an average score of 84.5, far surpassing the control group’s 66.5. Statistical analysis confirmed a significant difference ($p = 0.000$), with a mean gap of 8.3 points. Yet numbers alone do not tell the full story. Student questionnaires revealed that 93% felt the tasks and activities made them more engaged in learning, while 92% felt more creative and independent through the project-based approach. They were not merely copying; they were creating. They were not just following, they were contributing.

The concept of *Stories in Motion* was embodied in the way students not only read, but also wrote, emulated, and created actively through the *Tri-N* features and

project-based design. Narrative was no longer static; it moved through digital interaction, personal reflection, and meaningful collective contribution.

The Impact of Learning on Literacy Skills and Student Agency

The implementation of the *BERSINAR AMAN* module demonstrated a significant impact on students' narrative writing skills and the strengthening of their literacy agency. A limited trial at SDN 3 Getas recorded an increase in scores from 63 (pretest) to 82 (posttest). In the main trial, the experimental class using the digital module achieved an average score of 84.5, far surpassing the control class, which scored only 66.5. Statistical analysis using an independent samples t-test yielded a p-value of 0.000, indicating that the difference was statistically significant.

However, the impact of learning extended beyond numerical achievement. Qualitative data from student questionnaires revealed that 93% felt more actively engaged in the learning process, and 92% stated that the project-based approach encouraged greater creativity and independence. Students were no longer merely replicating narrative structures; they began creating with their own voices, expressing ideas, emotions, and values through the texts they produced.

The *nirokke* and *nambahi* features in the module guided students to imitate consciously, not as mechanical copying, but as a learning process that honours structure and meaning. Through digital worksheets (LKPD), students responded to reflective questions about characters, plot, and moral messages, then developed new stories inspired by the texts they had read. Teachers noted that this approach “helped students better understand the structure of narrative texts,” and rated the integration of the *Tri-N* philosophy with PjBL syntax at 95%.

Thus, *Tri-N* is not merely a method; it is a living way of learning embedded in the lives of Indonesian children. When elevated into the digital space as a tangible structure rather than a mere symbol, cultural engagement becomes not only possible, but it also emerges authentically and transformatively (Rochmiyati et al., [2024](#); Sulyanti & Rochmiyati, [2023](#)). This module affirms that technology need not erase local wisdom; rather, it can serve as a vessel for an educational philosophy rooted in the land, in stories, and in shared experience.

Student agency was clearly visible in the way they actively contributed—whether by uploading stories to the digital platform or reading their work aloud in class. They were not simply following instructions; they were stepping into roles as writers and learners with voices of their own. One student remarked, “I understand

better because I'm directly involved in the project," reflecting that literacy agency was no longer abstract; it was embodied in the learning practice.

Below is a Google Form designed to assess students' comprehension of the material and evaluate the quality of their narrative writing. It includes reflective prompts, text structure analysis, and a dedicated space for students to upload their written work.

Hebat kalian telah menyelesaikan tahap Niteni/Mencermati. Sekarang mari melangkah ke tahap selanjutnya pada tahap Niroke/Menirukan dengan menjawab pertanyaan berikut ini !

Ayo Menjawab Pertanyaan Berikut !

Pertanyaan berdasarkan Teks Sastra Pelayangan Lala dan Pencuci Sampah

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Figure 4. Digital Form for Narrative Literacy and Student Expression

Through the integration of *Tri-N* and *PjBL*, *Stories in Motion* became a living space for students to express their literacy agency. They were not just repeating structures; they were animating stories with their voices, values, and lived experiences.

CONCLUSION

This research demonstrates that integrating the *Tri-N* philosophy with a project-based approach through the BERSINAR AMAN web module transforms literacy from a mechanical routine into an active process that cultivates character, agency, and cultural connectedness. The intervention significantly improved students' narrative writing skills and fostered reflective, creative, and contextually grounded authorship, showing that technology can amplify rather than replace local wisdom. By operationalising the stages of *niteni*, *nirokke*, and *nambahi* within digitally curated texts, the model provided instructional innovation that aligns with constructivist and multimodal literacy theories while extending insights from prior studies on narrative agency. The findings highlight both measurable gains and qualitative outcomes, engagement, creativity, and identity formation, positioning

Stories in Motion as a scalable framework for culturally responsive digital pedagogy. Thus, the research addresses its objectives by demonstrating that narrative-based, project-driven design can simultaneously advance literacy achievement, embed philosophical values, and contribute to international discourse on transformative learning.

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