

BRIDGING THE LITERACY GAP: THE ROLE OF MULTIMODAL DIGITAL STORYTELLING IN HIGH SCHOOL EFL READING CLASSROOM

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Abstract

This classroom action research (CAR) study investigates the efficacy of integrating digital storytelling (DST) to improve the narrative text reading comprehension of tenth-grade students at an Islamic state senior high school (MAN) in West Jakarta. Grounded in cognitive multimedia learning and action research frameworks, the study was executed across three iterative cycles consisting of planning, implementation, observation, and reflection. The participants comprised 30 students selected based on initial diagnostic assessments indicating low engagement, sub-optimal text structure identification, and weak sentence retention. Data triangulation was achieved through mixed-method instruments, including classroom observation sheets, semi-structured interviews, and quantitative pre- and post-tests. The qualitative findings revealed that while students initially exhibited passive behaviour and native-language code-mixing due to cognitive overload in Cycle I, the systematic addition of technical scaffolding via Google Classroom, WhatsApp, and interactive smart boards in Cycles II and III transformed the classroom into an active, autonomous learning environment. Quantitatively, the intervention yielded an outstanding academic progression, with the class post-test average rising dramatically from an initial baseline of 55.4 to 93.5 by the conclusion of Cycle III. The results demonstrate that digital storytelling serves as an effective pedagogical tool to bridge literacy gaps, enhance student motivation, and cultivate a conducive learning atmosphere. Consequently, this study recommends that EFL educators transition away from traditional text-heavy materials and systematically integrate multimodal storytelling to maximize student academic productivity.

Keywords: Classroom Action Research; Digital Storytelling; Multimedia Learning; Narrative Text; Reading Comprehension.

INTRODUCTION

In the era of modern education, reading proficiency is recognized as a fundamental pillar of language acquisition and academic success. For senior high school students, mastering reading comprehension is essential, as it serves as the primary gateway to accessing diverse academic content and developing critical thinking skills. Among the various text genres prescribed in the secondary school curriculum, narrative texts hold a significant place. Narrative texts aim to entertain, motivate, and teach moral lessons through stories. Comprehending these texts requires students to not only decode words but also understand character motivations, sequence events, identify conflict resolutions, and grasp underlying themes.

However, in practice, teaching narrative reading comprehension to tenth-grade students often presents substantial challenges. At this transitional stage from junior to senior high school, many students struggle to bridge the gap between simple reading and deeper textual analysis. Traditional reading instruction frequently relies on passive methods—such as silent reading followed by answering monotonous multiple-choice questions—which often results in low student engagement and minimal retention. Consequently, students frequently face difficulties in identifying specific textual details, predicting outcomes, and retelling stories in their own words. This lack of engagement and comprehension is reflected in suboptimal academic performance, as evidenced by initial baseline assessments where average student scores fall well below passing standards.

To address these pedagogical shortcomings, educators must transition toward innovative, student-centered instructional media that can stimulate interest and deepen comprehension. One highly promising approach is Digital Storytelling (DST). Digital storytelling combines the ancient art of oral storytelling with a variety of digital multimedia tools, including graphics, audio, video, and animation. By transforming static textual narratives into dynamic visual experiences, DST caters to diverse learning styles and helps abstract concepts become more concrete. In a reading classroom, digital storytelling can act as a powerful scaffolding tool, allowing students to visualize the narrative structure, contextualize unfamiliar vocabulary, and maintain high levels of cognitive engagement throughout the reading process.

In recent years, computer technology—coupled with internet and hypermedia capabilities—has become an invaluable asset for second and foreign language educators. Multimedia integration offers diverse options to meet the needs of students with varying learning styles and strategies (Sandaran & Kia, 2013). Empirical evidence shows that computer-based multimedia enhances learning across key criteria, including content acquisition, skill development, instructional efficiency, and overall learner satisfaction (Falk et al., as cited in Sandaran & Kia, 2013). Furthermore, Ramirez and Alonso (2007) point out that multimedia applications provide a more authentic and realistic representation of the target language. Because digital stories incorporate modern technologies that are visually stimulating, appealing, interactive, and repeatable, they serve as ideal tools for comprehension tasks (Ramirez et al., as cited in Sandaran & Kia, 2013).

The modern adaptability of this tool is further evidenced by its expanding role in cultural and foundational education. For instance, Wijirahayu, Priyatmoko, and Ifayati (2023) demonstrated that combining digital storytelling with comic elements and video animations serves as an excellent vehicle for promoting cultural values at an early age. This highlights that DST is not only a versatile tool for language acquisition but also an effective medium for making complex, abstract narratives highly accessible and visually engaging for young learners.

As a technology application, DST is uniquely positioned to leverage user-generated content and help teachers overcome traditional barriers to productive classroom technology integration (Robin, 2008). While defined by the Digital Storytelling Association (2011) as a "modern expression of the ancient art of storytelling," the concept itself is not entirely new. Joe Lambert and the late Dana Atchley, co-founders of the Center for Digital Storytelling (CDS) in Berkeley, California, pioneered the modern DST movement in the late 1980s (Robin, 2008). While existing literature highlights the general benefits of multimedia in the classroom, there remains a need to investigate its structured, cyclical impact on specific classroom environments, particularly within the context of Islamic state senior high schools (MAN) in urban settings like Jakarta, where student demographics and technological resources present unique dynamics.

Therefore, this study aims to examine how the systematic implementation of digital storytelling can enhance the narrative text reading abilities of tenth graders. By utilizing a Classroom Action Research (CAR) design across multiple cycles, this research seeks to provide empirical evidence of how multimedia integration can overcome traditional reading barriers, ultimately offering practical insights for language teachers striving to foster more active and proficient readers.

METHOD

Research Design

This study employed a Classroom Action Research (CAR) design, a qualitative and quantitative mixed-method approach widely used to diagnose and solve practical pedagogical problems in the classroom. The primary objective of this design was to systematically improve the quality of narrative text instruction and enhance students' reading comprehension through iterative intervention cycles. Following a classic action research framework, each of the three cycles executed in this study consisted of four interrelated phases: Problem Recognition and Planning, Implementation, Evaluation, and Reflection.

Participants and Setting

The subjects of this research were 30 tenth-grade students enrolled at an Islamic state senior high school (Madrasah Aliyah Negeri - MAN) located in West Jakarta, Indonesia. This particular cohort was selected based on preliminary diagnostic assessments that revealed low engagement and suboptimal comprehension scores when reading narrative texts.

Research Procedures and Cycles

The intervention was systematically distributed across three distinct cycles to monitor gradual progression and refine teaching strategies based on on-going reflections:

Cycle I: Comprised four distinct instructional meetings focusing on introducing digital storytelling and foundational narrative structures.

Cycle II: Comprised three meetings, which adjusted for the technical and conceptual gaps identified in the first cycle.

Cycle III: Comprised two final meetings aimed at reinforcing student autonomy in retelling and analysing texts.

Within each cycle, the operational steps were executed as follows:

1. Planning: Developing lesson plans, selecting appropriate narrative texts, and preparing the digital storytelling media.
2. Implementation: Executing the digital storytelling-assisted reading lessons in the classroom.
3. Evaluation: Assessing students' performance, vocabulary retention, and text detailing abilities using quantitative tests and qualitative logs.
4. Reflection: Analyzing qualitative notes and test data to identify lingering weaknesses and design corrective adjustments for the subsequent cycle.

Data Collection Techniques

To ensure comprehensive validity and triangulation, data were collected using both qualitative and quantitative instruments:

Qualitative Data: Gathered continuously to capture classroom dynamics, student behavior, and engagement levels. The primary tools included:

- *Classroom Observations*: Documented via structured observation sheets.
- *Interviews*: Conducted with students to gather feedback on their learning experiences.
- *Documentation*: Comprising field notes, interview transcripts, and photographs of the classroom process.

Quantitative Data: Acquired to measure empirical growth in reading comprehension performance. This data consisted of objective pre-tests (administered before Cycle I) and post-tests (administered at the conclusion of each cycle, culminating after Cycle III).

Data Analysis

The collected data sets were processed using distinct analytical techniques:

Qualitative Analysis: Followed iterative steps of data reduction, data display, and conclusion drawing. Field notes and interview transcripts were systematically coded to track changes in student attitudes and reading behaviors.

Quantitative Analysis: Test scores were organized and subjected to statistical analysis. Descriptive statistics were computed using Microsoft Excel and SPSS (Statistical Package for the Social Sciences) software to track changes in class averages, minimum/maximum scores, and percentage gains from the initial baseline to the final post-test.

RESULTS AND DISCUSSION

This section presents the key findings of the study, followed by a comprehensive discussion of their implications. The results, derived from the data collected, will be detailed and then interpreted in the context of the initial research questions and relevant literature, highlighting both significant observations and unexpected outcomes

Result

Implementation of Cycle I: Lesson Chronology and Materials

The first cycle of this classroom action research spanned four distinct meetings designed to gradually transition students from traditional text decoding to multimedia-assisted comprehension.

Initial Baseline Diagnostic (Meeting 1): To gauge baseline comprehension, the researcher introduced a traditional printed narrative text titled *"The Lion and The Mouse"* without any accompanying translation. Students were allocated 10 minutes for silent reading. Upon questioning, the majority of the students failed to comprehend the core plot elements, highlighting the severe barriers they faced when processing unassisted English texts. To remediate this, the researcher introduced the first prepared digital storytelling video to establish visual context.

Scaffolding and Memory Stimulation (Meeting 2): The second meeting began with retrieval prompts to stimulate memory regarding narrative features. The researcher then introduced the digital story of *"Malin Kundang"*. The visual format immediately boosted classroom interaction, as multiple students enthusiastically answered text-dependent questions during the post-viewing phase.

Summarization and Visual Tracking (Meeting 3): The third meeting focused on structural understanding using the story of *"The Ugly Duckling"*. To reduce cognitive load, the researcher played the 10-minute video three times. Students were given 30 minutes to construct a summary of the plot. While engagement was high, linguistic barriers persisted: students submitted summaries written either entirely in Indonesian or using a code-mixed combination of English and Indonesian.

Structural Practice and Cloze Tasks (Meeting 4): Conducted on Friday, the final meeting of the cycle utilized a multimodal approach for the folklore *"Sangkuriang"*. The researcher displayed a sequence of story illustrations on the smart board and administered a structural cloze text (fill-in-the-blank) activity to test target vocabulary and narrative sequencing skills.

Observing Action: Qualitative Reflections on Cycle I

During the execution of these four meetings, the researcher collaborated closely with a co-teacher (Mrs. I) who served as an external classroom observer to evaluate student engagement, instructional delivery, and environmental dynamics.

Classroom Dynamics and Pedagogical Delivery

The integration of digital storytelling yielded an immediately positive shift in classroom behavior compared to prior online learning environments. Instruction was delivered using a bilingual approach (English and Indonesian) to maintain accessibility while modeling target vocabulary. Lessons strictly adhered to the pre-designed lesson plans (*RPP*) and syllabus targets. To measure whether meeting-specific objectives were met, daily formative questions were delivered via the school's interactive smart boards. This facility proved highly supportive, allowing the researcher to present sequential slide decks, project high-definition videos, and isolate specific text elements efficiently.

Student Responses and Perceptions

Qualitative feedback collected through observations and semi-structured interviews indicated strong student approval of the multimedia format. When questioned about the digital storytelling method, students explicitly stated:

"I really like it, Miss. I am not sleepy and it is not as boring as usual because I do not have to just stick to books."

The qualitative observations showed that students could easily grasp the underlying themes, identify specific textual details, and synthesize story plots when anchored by the animations on the smart board.

Identified Limitations and Refinement Strategies

Despite the high enthusiasm and improved classroom behavior, the observation phase exposed critical structural vulnerabilities in Cycle I that necessitated structural modifications for the subsequent cycle:

1. **Linguistic Resistance and Code-Mixing:** When required to write summaries or retell text details, students heavily relied on their native language or mixed Indonesian with English, indicating they lacked the grammatical confidence to produce monolingual outputs.
2. **Retention and Time Constraints:** Due to limited classroom exposure, students easily forgot structural concepts (*orientation, complication, resolution*) between weekly meetings.

To systematically eliminate these weaknesses, the researcher introduced a technological modification at the start of the next phase. The storytelling video links (such as *"The Crying Stone"*, a 4-minute narrative) were systematically uploaded to WhatsApp groups and Google Classroom. This digital repository allowed students to re-access, replay, and study the media asynchronously outside of school hours.

To transition from passive viewing to active linguistic production, PowerPoint image prompts were utilized during follow-up meetings to compel selected students to verbally reconstruct the plot sequences. This paved the way for more rigorous, monolingual worksheets where students were given strict, non-assisted 5-minute intervals to synthesize text details exclusively in English, effectively addressing the gaps identified during the observation of Cycle I.

The Progression of Classroom Action Research Cycles

To systematically track how the integration of digital storytelling addressed the core reading difficulties identified in the preliminary phase, the qualitative observations from all three cycles have been synthesized. Table 1 outlines the specific problems students faced and how they resolved them across the iterative cycles.

Table 1: Matrix of Student Problems and Progress across Cycles 1, 2, and 3

No.	Identified Reading Problem	Cycle 1 Progress / Challenges	Cycle 2 Progress	Cycle 3 Ultimate Outcome
1	Sentence Composition & Retention	Many students remained passive; they struggled to understand the animated videos fully and forgot content quickly.	Students could understand several sentence structures and began grasping the main content of the reading texts well.	Test results confirmed students could independently compose sentences to retell the entire narrative story.
2	Identifying Generic Text Structure	Students failed to identify the core components: <i>orientation, complication, resolution, and re-orientation</i> .	Students began identifying the generic structures of the reading texts with relative ease.	Students could quickly locate, evaluate, and distinguish the different parts of the generic structure independently.
3	Understanding Textual Details (Type & Purpose)	Students found it difficult to understand the fine details of narrative texts when delivered purely in English.	Students successfully identified text details, distinguished between genres, and accurately located the text's purpose.	Students effortlessly comprehended complex textual details and accurately answered all related assessment questions.
4	Lack of Experience with Digital Storytelling	Initial motivation increased due to video elements, though a segment of the class remained passive during tasks.	Enthusiasm spiked; students utilized the ability to replay videos repeatedly, resulting in an increase in reading comprehension.	Students became fully accustomed to the tool. Classroom dynamics were highly conducive, all students actively participated, and all could flawlessly answer the researcher's questions.

Qualitative Discussion of the Iterative Improvements

Phase 1: Overcoming Initial Hurdles (Cycle 1)

In the first cycle, the transition to digital storytelling presented mixed results. While the novelty of animated videos initially stimulated student interest, a significant number of tenth graders remained passive. The primary barriers were cognitive overload and lack of familiarity with the English media interface. Students struggled to comprehend fluid sentence structures and rapidly forgot the details of the stories. Furthermore, their analytical reading skills were weak; they were entirely unable to segment narrative texts into standard structural phases (*orientation, complication, resolution*).

Phase 2: Building Scaffolding and Engagement (Cycle 2)

Based on the reflections from Cycle 1, adjustments were made to capitalize on the repeatable nature of digital storytelling. By allowing students to access and replay the videos, a notable shift occurred in Cycle 2. The passive behavior minimized as students became enthusiastic participants. Visually anchored by the multimedia elements, students began accurately isolating text details, determining the author's purpose, and mapping out the generic structure of the narrative without teacher intervention.

Phase 3: Mastery and Sustained Learning Environment (Cycle 3)

By the third cycle, the pedagogical advantages of digital storytelling were fully realized. The classroom environment became highly stabilized, cooperative, and conducive to deep learning. The

students moved past simple visual consumption and achieved autonomous literacy. Quantitatively and qualitatively, they demonstrated complete mastery by successfully composing complex sentences to retell the narrative arcs in their own words. They displayed a refined ability to instantly distinguish text structures and solve advanced comprehension questions, proving that continuous exposure to digital storytelling fundamentally bridged their reading deficiencies.

Discussion

The substantial improvements observed across the three cycles underscore the profound utility of classroom action research. As emphasized by Zamruddyn (2020), CAR is highly beneficial for educators as it serves a dual purpose: it allows teachers to diagnose the exact pedagogical needs of their students while simultaneously acting as a self-reflective tool to enhance their own teaching methodologies. In this study, the introduction of digital storytelling as an innovative pedagogical medium allowed the researcher to systematically target and remediate deep-rooted reading comprehension deficiencies.

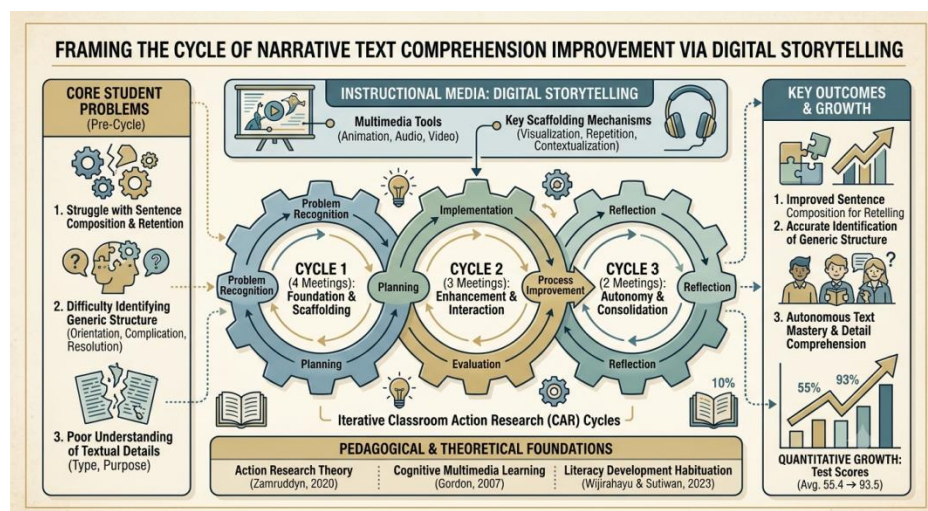


Figure 1. Framing the Cycle of Narrative Text Comprehension Improvement Via Digital Storytelling

The notable disparity between the initial pre-test scores and the final post-test scores clearly demonstrates the transformative impact of the treatment. Prior to implementing the digital storytelling intervention, a preliminary baseline study consisting of classroom observations and diagnostic questionnaires was conducted to map out existing student barriers. This initial data informed the strategy for Cycle 1. However, reflections from Cycle 1 revealed that students still struggled to fully retain the material, complete comprehension tasks, and retell the narrative contents.

To overcome these initial hurdles, critical methodological improvements were injected into Cycle 2. The researcher expanded the instructional framework by incorporating Google Classroom, which provided a centralized digital repository where students could easily access, review, and repeatedly replay the storytelling videos. Coupled with targeted reading comprehension exercises, this technological scaffolding effectively resolved the students' initial barriers. As a result, the students developed the confidence to synthesize and retell stories.

According to Duman and Göcen (2015), the interactive nature of digital media allows students to better generate ideas, discuss textual structures collaboratively, and collectively improve their grammatical accuracy. This collaborative environment was highly evident in Cycle 2, where peer-to-peer support significantly accelerated comprehension. To solidify these gains and ensure long-term mastery, the intervention was extended into Cycle 3. During this final phase, students

demonstrated advanced digital literacy and autonomy by submitting their comprehension tasks and recorded storytelling retellings via Google Drive and YouTube links. The classroom dynamics shifted dramatically into a vibrant, student-centered environment.

This finding aligns closely with Gordon (2007), who posits that the strategic blend of digital images, synchronized sound, and simple animations triggers latent cognitive abilities while fostering an intrinsically pleasant and low-anxiety classroom atmosphere. Furthermore, as Wijirahayu and Sutiwan (2023) observe, modern technology plays a definitive role in developing literacy; when instructors habitually and confidently utilize digital tools, it encourages students to adopt a relaxed mindset that directly translates into higher academic productivity.

Ultimately, while the systematic implementation of digital storytelling requires a significant investment of classroom time and technical preparation, the long-term educational payoffs are undeniable. By shifting the paradigm away from static, text-heavy traditional reading materials, digital storytelling provides an active, visually rich, and creative learning space that fundamentally elevates students' reading comprehension and fosters a deeply positive attitude toward language acquisition (Wijirahayu et.al. 2026).

CONCLUSION

This classroom action research successfully demonstrated that the integration of digital storytelling is a highly effective instructional method for enhancing the narrative text reading comprehension of tenth-grade students. Over the course of three iterative cycles, the intervention systematically addressed and resolved the students' core reading difficulties. Initially, in Cycle I, students faced significant challenges regarding passive engagement, poor sentence retention, and an inability to identify basic generic text structures (*orientation, complication, and resolution*). However, by utilizing the visual and repeatable nature of digital storytelling in Cycles II and III, students developed an autonomous grasp of textual details and structure.

The success of this method is heavily substantiated by both qualitative and quantitative evidence. Qualitatively, classroom dynamics transformed from a passive environment into a highly enthusiastic, active, and conducive learning space where students confidently composed sentences to retell stories. Quantitatively, this progression is mirrored by a massive leap in academic performance, with the class post-test average rising dramatically from an initial baseline of 55.4 to an outstanding 93.5 by the end of Cycle 3. Ultimately, digital storytelling bridges the gap between traditional reading methods and modern literacy needs, proving to be an invaluable asset in the secondary school EFL classroom.

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