

INTEGRATING DIGITAL STORYTELLING (DST) TO IMPROVE LANGUAGE SKILLS OF GRADE 7 LEARNERS IN FILIPINO

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Abstract

This study examined the effectiveness of integrating Digital Storytelling (DST) in improving the Filipino language skills of Grade 7 learners. The study was implemented at Mapita Integrated School, Aguilar District, Schools Division Office I Pangasinan, with 20 purposively selected students who initially demonstrated intermediate primary proficiency. Using a quasi-experimental one-group pretest–posttest design, the learners first completed a teacher-made Filipino language proficiency test aligned with the Most Essential Learning Competencies. They then received lessons where DST materials—multimedia stories combining text, images, audio, and video—were systematically embedded into classroom instruction. After the intervention period, the same test was administered as a posttest. Descriptive statistics and a paired-samples t-test were used to determine changes in proficiency.

Results showed substantial gains after DST integration. The pretest mean score of 14.9 (SD = 2.73) increased to a posttest mean of 23.6 (SD = 1.88). Learner distribution shifted positively: advanced-level students increased from 5% to 15%, while beginner-level students decreased from 10% to 5%, indicating improved overall mastery and more consistent performance. The paired-samples t-test revealed a statistically significant difference between pretest and posttest scores ($t = 17.71$, $p < 0.0001$), leading to the rejection of the null hypothesis. The findings suggest that DST, grounded in constructivist and multimedia learning principles, is an effective strategy for developing listening, speaking, reading, and writing skills in Filipino. The study recommends sustained DST use, targeted teacher training in DST design, and further research with larger samples and extended implementation to examine retention and scalability.

Keywords: Digital Storytelling, Filipino Language Skills, Grade 7 Learners, Multimedia Instruction, Pretest–Posttest Design

1. Introduction

Language learning in the Filipino subject remains a persistent instructional priority in Philippine basic education, particularly at the junior high school level, where learners are expected to consolidate listening, speaking, reading, and writing competencies for academic success and civic participation. However, multiple local studies continue to report gaps in literacy performance among Grade 7 learners, including weaknesses in reading fluency, comprehension, and written expression in Filipino. For instance, nationwide and school-based assessments show that many early-to-junior high school learners fall below expected proficiency levels, especially in comprehension and meaning-making, even when word recognition is adequate (Tomas et al., 2021; Figuerres, 2025). Similar difficulties are noted in Filipino writing, where Grade 7 learners often struggle with basic conventions and coherent paragraph development, signaling the need for classroom innovations that are both skill-focused and motivating (Cabigao, 2021).

These learning challenges are especially significant under the Department of Education's MATATAG Agenda and decongested MATATAG Curriculum, which emphasize learning recovery, improved literacy outcomes, and contextualized teaching approaches for relevant, meaningful learning experiences (Department of Education [DepEd], 2023a, 2023b). Within this policy direction, Filipino teachers are encouraged to adopt pedagogies that engage digital-native

learners, support multimodal comprehension, and cultivate communicative competence. The classroom realities of limited engagement in traditional text-bound instruction, coupled with learners' increasing exposure to multimedia environments, suggest that teaching approaches aligned with contemporary literacies may better respond to current learner needs.

Digital Storytelling (DST) has emerged as one such approach. DST refers to the creation or use of short narratives presented through a combination of modes such as text, images, audio, and video, enabling learners to express meaning using digital tools while engaging in story-based learning (Robin, 2008; University of Liverpool, n.d.). In instructional settings, DST is not only a technological product but a structured learning process that involves researching ideas, scripting, organizing content, and presenting narratives to an audience. This process encourages learners to synthesize language with visuals and sound, thereby supporting integrated skill development and a deeper personal connection to content (Robin, 2008; Smeda et al., 2014). Recent syntheses and meta-analytic work reinforce DST's positive effects on language learning outcomes across both first- and second-language contexts, including gains in comprehension, vocabulary, oral fluency, and writing quality (Özdemir et al., 2025; Wu et al., 2020).

Foundational learning theories also support the pedagogical value of DST. Constructivist perspectives assert that learners develop knowledge more effectively when they actively construct meaning from authentic tasks and social interactions, rather than passively receiving information (Piaget, 1970; Vygotsky, 1978). DST aligns with constructivism by positioning learners as meaning-makers who interpret narratives, connect them to lived experience, and, when producing digital stories, negotiate meaning through planning, drafting, revising, and reflecting. In addition, DST reflects principles from the Cognitive Theory of Multimedia Learning (CTML), which argues that learners understand content more effectively when words and visuals are meaningfully combined, given humans' dual information-processing channels and limited working memory capacity (Mayer, 2009; Waxman, 2023). Properly designed DST materials can reduce extraneous cognitive load and enhance germane processing by presenting language input through coherent multimedia narratives that guide attention toward key meanings (Mayer, 2009). Effective DST integration, however, requires teachers to blend content, pedagogy, and technology deliberately. The Technological Pedagogical Content Knowledge (TPACK) framework highlights that successful educational technology use depends on the teacher's ability to align the "what" (content), "how" (pedagogy), and "with what" (technology) in response to contextual classroom needs (Mishra & Koehler, 2006; Koehler et al., 2013). DST serves as a concrete instructional vehicle through which TPACK can be operationalized in Filipino teaching: content is embedded in culturally resonant stories, pedagogy emphasizes language practice and reflection, and technology provides multimodal channels for engagement.

Despite growing evidence for DST, Philippine-based research on DST among Filipino subjects, especially in Grade 7 and in rural or small-school settings, remains limited. Existing local studies suggest that DST improves Filipino learning performance and engagement. However, many focus on larger urban schools or short-term applications, leaving questions about their effectiveness in smaller, context-specific classrooms (Abelon, 2023). Moreover, teachers need locally generated action research to validate whether DST meaningfully improves proficiency within their own learner profiles, resources, and curricular demands. This gap motivates the present study.

Accordingly, this study investigates the effectiveness of integrating Digital Storytelling to improve the Filipino language skills of Grade 7 learners at Mapita Integrated School. Specifically, it (a) describes learners' Filipino language proficiency before and after DST integration, and (b) tests whether a significant difference exists between pretest and posttest performance. By grounding the intervention in constructivism, CTML, and TPACK, the study aims to provide evidence-based guidance for Filipino teachers seeking practical literacy interventions aligned with MATATAG priorities.

The significance of this study is threefold. For learners, DST offers an engaging pathway to practice Filipino language skills in authentic, multimedia contexts. For teachers, the results can inform instructional planning and material development, particularly for differentiated support in mixed-proficiency classrooms. For school leaders and curriculum implementers, the research contributes localized evidence on technology-enabled literacy strategies that can be scaled or adapted within learning recovery initiatives. Ultimately, the study supports the broader goal of strengthening Filipino literacy and communicative competence among junior high school learners through innovative, context-sensitive pedagogy.

2. Method

2.1 Research Design

The study employed a quasi-experimental one-group pretest–posttest action research design to determine the effectiveness of integrating Digital Storytelling (DST) in improving Grade 7 learners' Filipino language skills. A single intact group of 20 purposively selected students from Mapita Integrated School was assessed using a teacher-made Filipino proficiency test aligned with the Most Essential Learning Competencies prior to the intervention (pretest). The DST-based lessons, which embedded multimedia stories combining text, visuals, audio, and video into regular Filipino instruction, were then implemented over the treatment period. After completion, the same instrument was re-administered as a posttest to measure learning gains. Pretest and posttest scores were analyzed using descriptive statistics (means, standard deviations, proficiency-level distributions) and an inferential paired-samples t-test to determine whether the observed improvement was statistically significant, thereby allowing the study to attribute the performance change to the DST integration within the classroom context.

2.2 Participants

The participants in the study were 20 Grade 7 learners from Mapita Integrated School in the Aguilar District, Schools Division Office I Pangasinan, who were selected through purposive sampling based on their enrollment in the Filipino class and suitability for the Digital Storytelling (DST) intervention. This intact group represented the typical language proficiency profile of the class at the start of the research, with most learners demonstrating intermediate-level Filipino skills during baseline assessment. The selection ensured that participants were directly exposed to the same instructional conditions, learning competencies, and assessment requirements, thereby allowing a valid within-group comparison of pretest and posttest performance and enabling the study to examine how DST integration influenced Filipino language development in authentic classroom settings.

2.3 Instrumentation

The study used a researcher-developed, teacher-made Filipino language proficiency test as the primary instrument, administered in pretest and posttest forms to measure learners' listening, speaking, reading, and writing skills before and after the Digital Storytelling (DST) intervention. The instrument was standardized for consistent administration and scoring, aligned with Grade 7 Filipino curriculum standards and the Most Essential Learning Competencies, and served as the quantitative basis for determining proficiency levels and learning gains attributable to DST integration in the classroom.

2.4 Data Analysis

This study followed a two-stage quantitative approach to determine whether Digital Storytelling (DST) produced measurable gains in Filipino language proficiency. First, descriptive statistics were computed to summarize and compare learners' pretest and posttest performance,

specifically using the mean and standard deviation to describe central tendency and score spread, and frequency distributions with percentages to show how many learners fell into the Beginner, Intermediate, and Advanced proficiency categories before and after the intervention. These descriptors established the baseline profile and documented shifts in achievement attributable to DST. Second, an inferential paired-samples t-test was applied to the matched pretest–posttest scores to test the null hypothesis and verify whether the observed improvement was statistically significant, thereby providing evidence that changes in proficiency were unlikely due to chance. Simple tables were also used to present results clearly and support direct comparison of pre-intervention and post-intervention outcomes.

3 Results

According to a July 2025 document, the results show that, before the Digital Storytelling (DST) intervention, learners' Filipino language proficiency was largely at a developing level. In the pretest, 17 out of 20 learners (85%) were classified as Intermediate, two learners (10%) as Beginner, and one learner (5%) as Advanced. The mean pretest score was 14.9 with a standard deviation of 2.73, indicating moderate proficiency with some variability across students. These baseline findings suggested that most learners had functional but not yet strong mastery of Filipino language skills and that a small subset required targeted support.

After DST was integrated into Filipino lessons, posttest outcomes reflected a clear upward shift in proficiency. The Intermediate group remained the majority at 16 learners (80%), but the number of Advanced learners increased to 3 (15%), showing that more students moved beyond the expected proficiency threshold. At the same time, the Beginner category decreased from 2 learners to 1 learner (5%), implying that even lower-achieving students benefited from the multimedia storytelling approach.

The improvement was also evident in overall performance metrics. Mean scores rose sharply from 14.9 in the pretest to 23.6 in the posttest, demonstrating substantial gains in Filipino language proficiency following DST exposure. In addition, score dispersion narrowed, as shown by the drop in standard deviation from 2.73 to 1.88. This reduction in variability indicates that DST not only raised achievement but also contributed to more consistent performance among learners, with fewer wide gaps between higher- and lower-performing students.

To test whether these gains were statistically meaningful, a paired-samples t-test compared matched pretest and posttest scores. The analysis produced a t-value of 17.71 with a p-value of < 0.0001 , far below the 0.05 significance threshold. This result confirms that the observed improvement was highly significant and unlikely to be due to chance, leading to the rejection of the null hypothesis. Therefore, DST integration had a positive and statistically significant effect on Grade 7 learners' Filipino language proficiency.

Overall, the pattern of results provides converging evidence for DST effectiveness: proficiency levels improved, mean achievement increased markedly, the number of low-performing learners declined, and performance became more uniform across the class. Collectively, these outcomes demonstrate that DST served as a strong instructional intervention to enhance listening, speaking, reading, and writing skills in Filipino in this Grade 7 context.

4 Discussion

The findings of the present study corroborate a growing body of evidence that Digital Storytelling (DST) significantly enhances language proficiency through multimodal, narrative-based learning. The statistically significant gain in Filipino language performance after DST integration parallels broad conclusions from recent meta-analytic and systematic review literature, which report that DST produces positive effects across the four macro language skills in both native and second-language contexts (Gözüyeşil-Özdemir et al., 2025; Lim et al., 2022). In particular, these reviews highlight DST's capacity to strengthen comprehension and meaning-

making by combining verbal and visual channels, a pattern consistent with the current study's marked rise in mean scores and the upward movement of learners into higher proficiency bands.

At the national and classroom level, the results align with Philippine-based work, indicating DST's effectiveness in Filipino instruction. Abelon (2023), for example, documented improved Filipino learning outcomes among Grade 7 students exposed to DST compared with traditional methods, suggesting that narrative multimedia supports mastery of Filipino competencies in early secondary schooling. The present study reinforces this localized evidence, showing that even in a smaller rural-classroom context, DST yields meaningful proficiency gains and reduces the number of low-performing learners. Together, these studies suggest that DST is not only theoretically sound but also practically transferable across Philippine junior high school settings.

International quasi-experimental studies also mirror the achievement trajectory observed here. Research in secondary language classrooms consistently reports significant pretest–posttest gains following DST interventions, particularly in productive skills. For instance, quasi-experimental research on DST in EFL contexts shows that students using DST achieve better writing quality, fluency, and linguistic control than those using conventional storytelling (Barua, 2023; Nami, 2019). Similarly, studies focusing on DST and speaking competence find gains in oral fluency and confidence, attributable to repeated rehearsal, audience awareness, and multimodal planning embedded in the storytelling process (Yeh et al., 2021; Nguyen, 2023). The direction and magnitude of improvement in the current research fit this wider pattern, indicating that DST supports skill integration rather than isolated sub-skill growth.

Further corroboration is visible in DST studies centered on receptive skills. Action research on digital short stories demonstrates significant improvements in learners' listening comprehension, underscoring how audio-visual narratives scaffold attention, vocabulary acquisition, and inferencing (Firat & Köksal, 2020). In the present study, posttest gains and reduced performance variability similarly suggest that DST's coherent multimodal inputs helped learners process Filipino texts more efficiently and consistently, including those who initially performed at the beginner level. This convergence strengthens the claim that DST is especially useful for classrooms oriented toward literacy recovery and comprehension development.

Overall, the study's outcomes affirm that DST is a robust, evidence-supported pedagogical strategy for language learning. Consistent with global syntheses and local Philippine trials, DST appears to raise achievement, increase the proportion of higher-proficiency learners, and narrow performance gaps (Gözüyeşil-Özdemir et al., 2025; Abelon, 2023; Lim et al., 2022). The corroboration across contexts implies that DST's instructional contribution lies in its simultaneous support for engagement, multimodal comprehension, and authentic language production—features directly aligned with current MATATAG learning-recovery priorities.

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