

Enhancing Grade 6 Learners' Listening Comprehension Skills Through Digitized Storytelling

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ABSTRACT

This study investigated the effectiveness of digitized storytelling in enhancing listening comprehension skills among 43 Grade 6 learners from two public elementary schools in the Adams-Pagudpud District, Ilocos Norte, during the 2024–2025 academic year. Employing a quasi-experimental one-group pretest-posttest design, the research addressed the persistent literacy crisis in the Philippines, where national assessments reveal that fewer than 40% of elementary learners meet grade-level expectations in English proficiency. A three-week intervention utilizing digitized storytelling materials was implemented, with assessment conducted through a 20-item multiple-choice instrument adapted from the Phil-IRI Manual.

Results demonstrated substantial improvement: the percentage of learners at the frustrated level decreased, while the percentages at the instructional and independent levels increased significantly. Mean scores improved from 7.63 to 11.65, representing a 52.69% gain. Paired t-test analysis confirmed statistically significant differences, indicating that digitized storytelling's multimodal integration of visual and auditory elements effectively enhanced listening comprehension across diverse learners. These findings underscore digitized storytelling as a pedagogically sound, evidence-based intervention warranting broader implementation in Philippine public schools to address systemic comprehension challenges.

Keywords: digitized storytelling, listening comprehension, Grade 6 learners, multimodal intervention, Philippine education

INTRODUCTION

Background of the Study

Listening is the foundational pillar of language acquisition and the primary gateway through which individuals engage with spoken communication. As the first language skill acquired from birth, listening precedes and supports the development of speaking, reading, and writing abilities (Ellison & Wang, 2018). Unlike passive hearing, listening is an active, complex cognitive process that requires sustained attention, mental effort, and strategic engagement with auditory input.

Listening comprehension specifically refers to the capacity to understand, process, and derive meaning from spoken language through the integration of bottom-up and top-down processing strategies. Bottom-up processing involves decoding individual sounds, recognizing words, and parsing grammatical structures, while top-down processing draws upon prior knowledge, contextual clues, and inferential reasoning to construct meaning. Comprado et al. (2025) demonstrated that learners with strong listening comprehension skills exhibit superior performance across multiple academic disciplines, as they can effectively process oral instructions, engage with multimedia learning materials, and participate meaningfully in classroom discourse. Conversely, learners who struggle with listening comprehension often experience cascading difficulties in other language domains, creating persistent barriers to educational success and communicative competence.

The Philippines faces a severe and persistent literacy crisis, starkly illuminated by international and national assessments. The Programme for International Student Assessment (PISA) 2022 results revealed that the

Philippines ranked among the lowest-performing countries globally in reading comprehension, with the majority of Filipino students unable to demonstrate even basic proficiency levels (OECD, 2023). National assessment data corroborate these international findings, revealing widespread difficulties in listening comprehension among Filipino learners across grade levels. Tipay and Ognita (2026) reported that the majority of Grade 4 learners in their study demonstrated frustrated-level performance on Philippine Informal Reading Inventory (PHIL-IRI) listening comprehension pretests, indicating significant difficulties in understanding spoken texts at age-appropriate levels. Similarly, Comprehensive Rapid Literacy Assessment (CRLA) results consistently show that fewer than 40% of elementary learners meet grade-level expectations in English language proficiency, with listening comprehension representing a particularly vulnerable area (DepEd Order No. 14, s. 2018).

These alarming findings reflect systemic weaknesses in foundational literacy instruction and highlight the inadequacy of current pedagogical approaches in developing students' comprehension skills across listening, reading, and critical thinking domains. The crisis extends beyond reading to encompass listening comprehension, which serves as a precursor and parallel skill to textual understanding yet receives considerably less instructional attention in Philippine classrooms.

The global integration of digital technologies into educational practice has fundamentally transformed how teaching and learning occur, creating unprecedented opportunities for enhancing literacy instruction through multimodal, interactive, and learner-centered approaches. Digital tools enable educators to present information through multiple sensory channels simultaneously, combining visual imagery, auditory input, textual elements, and interactive features that support diverse learning preferences and reduce cognitive load (Mayer, 2020; Darling-Hammond et al., 2020).

Digital storytelling has emerged as a particularly powerful application of educational technology, leveraging the ancient human affinity for narrative while incorporating contemporary multimedia capabilities to create engaging, meaningful learning experiences. Robin (2016) defines digital storytelling as the integration of narrative structure with digital media elements, including images, animation, music, narration, and video, to communicate ideas, convey information, and evoke emotional responses. Meanwhile, Nabirye (2025) emphasizes that digital storytelling transcends mere technological enhancement, representing a fundamental reconceptualization of how narratives can be constructed, shared, and experienced in digitally mediated learning environments. Moreover, Fiorella and Mayer (2021) explain that digital storytelling reduces extraneous cognitive load by presenting information in coherent, well-structured formats that minimize unnecessary mental effort while simultaneously supporting germane cognitive processing through meaningful integration of multimedia elements.

Empirical research consistently demonstrates that digital storytelling interventions produce significant improvements in listening comprehension across diverse learner populations and educational contexts. Juvrianto et al. (2018) reported that eighth-grade Indonesian students who were exposed to digital storytelling instruction achieved a mean score improvement of 52.69% from pretest to posttest, with statistically significant gains across all comprehension levels. Similarly, Khasanah et al. (2023) found that digital storytelling enabled students to better understand speakers' messages, increased motivation for listening activities, and improved overall listening ability by integrating engaging visual and auditory elements. Alipar et al. (2024) explain that synchronized narration, animations, and visual representations reduce the cognitive burden of auditory processing alone, allowing learners to allocate mental resources toward higher-order comprehension processes such as inference-making and critical evaluation.

Despite the growing body of evidence supporting the effectiveness of digital storytelling in language education, significant gaps persist in research on the development of listening comprehension among intermediate-grade Filipino learners in public school contexts. Most existing studies focus on reading comprehension, early childhood learners, or secondary and tertiary students, leaving the crucial intermediate elementary years underexplored (Tipay & Ognita, 2026). Furthermore, limited research examines listening comprehension across the full spectrum of cognitive levels—literal, inferential, and critical—with most studies concentrating on basic recall and surface-level understanding. This gap is particularly problematic, given that higher-order listening

skills are critical developmental milestones for Grade 6 students who must transition to more sophisticated academic language use in preparation for secondary education.

The scarcity of context-specific interventions designed for Philippine public school settings represents another critical research gap. International studies often assume access to technological infrastructure, teacher training, and material resources that remain unavailable or inconsistent in many Filipino schools. Local research examining the feasibility, effectiveness, and scalability of digital storytelling interventions within the constraints and affordances of Philippine classroom environments is urgently needed to inform evidence-based policy and practice. Additionally, few studies investigate how cultural relevance, linguistic diversity, and local content integration influence the effectiveness of digital storytelling for Filipino learners, despite theoretical and empirical evidence suggesting that culturally responsive pedagogy enhances learning outcomes.

As such, this study was conducted to investigate how the use of digitized storytelling material could help enhance the listening comprehension skills of Grade 6 learners. This study sought to identify whether internationally conducted studies consistently manifest in the local setting.

Statement of the Problem

This study aimed to determine the effectiveness of digitized storytelling in enhancing the listening comprehension skills of Grade 6 learners.

Specifically, it sought answers to the following questions.

1. What is the level of listening comprehension skills of the Grade 6 learners before the implementation of the digitized storytelling?
2. What is the level of listening comprehension skills of the Grade 6 learners after the implementation of the digitized storytelling?
3. Is there a significant difference between the listening comprehension skills of the Grade 6 learners before and after the implementation of the digitized storytelling?

Research Hypothesis

The study was anchored on the following hypothesis.

H0: There is no significant difference between the pretest and posttest results after the implementation of the digitized storytelling intervention.

Significance of the Study

This study offers substantial contributions to multiple stakeholders in the educational community. For Grade 6 learners, the digitized storytelling intervention provides an engaging, multimodal approach to developing listening comprehension skills, potentially improving academic performance, and fostering lifelong literacy habits.

On the other hand, teachers benefit from evidence-based instructional strategies that effectively integrate technology, offering practical alternatives to traditional methods for addressing diverse learning needs and enhancing pedagogical repertoires.

Parents can also gain insights into how digital tools support their children's literacy development, enabling informed decisions about the use of educational technology at home.

In addition, school administrators receive empirical data that justify investments in digital resources and professional development programs, thereby facilitating evidence-informed policy decisions regarding technology integration and curriculum enhancement.

Moreover, instructional material developers obtain valuable feedback for designing effective digitized storytelling materials that align with learners' comprehension needs and developmental levels, thereby promoting innovation in educational content creation.

Furthermore, future researchers are provided with a foundational study that identifies gaps, methodological considerations, and potential directions for investigating digital storytelling's long-term effects, applications across grade levels, and comparative effectiveness with other interventions.

Scope and Delimitation of the Study

This study investigated the effectiveness of a digitized storytelling intervention in enhancing the listening comprehension skills of Grade 6 learners during the 2024–2025 academic year. Employing a quasi-experimental one-group pretest-posttest design, the research focused exclusively on 43 purposively selected Grade 6 students from two public elementary schools in the Adams-Pagudpud District, Schools Division of Ilocos Norte. The participants were selected based on accessibility and identified needs related to listening comprehension development.

The intervention spanned three weeks and used digitized storytelling materials to improve listening skills. Assessment was limited to a 20-item multiple-choice instrument adopted from the Department of Education's Phil-IRI Manual (2018), measuring comprehension across three performance levels: frustrated, instructional, and independent. Statistical analysis was confined to descriptive statistics (frequency, percentage, mean) and inferential analysis using paired t-test at $\alpha = 0.05$ and $\alpha = 0.01$ significance levels.

Meanwhile, the study was limited by the absence of a control group, which limits causal inference, and by its focus on a single grade level within one geographic district, which restricts generalizability. Personal identifiers were excluded to ensure confidentiality. Long-term retention effects and other literacy domains beyond listening comprehension were not examined.

Definition of Terms

To better understand the study for readers, the following terms were operationally defined.

Digitized storytelling. This refers to the developed intervention material to help enhance the listening comprehension skills of the Grade 6 learners.

Grade 6 learners. They encompass the study participants. These include the 43 learners enrolled during the academic year 2024-2025 in the three pre-identified public elementary schools in the municipality of Pagudpud, Adams-Pagudpud District of the Schools Division of Ilocos Norte.

Level of listening comprehension. It refers to the degree to which a learner can understand and process the information heard. This is assessed using a 20-item multiple-choice pretest and posttest. The data were interpreted using the Phil-IRI tool as follows: frustrated (0-8), instructional (9-13), and independent (14-20).

METHODOLOGY

Research Design

The study used a quasi-experimental research design to determine the effectiveness of the digital storytelling approach in enhancing the listening skills of the Grade 6 learners. Quasi-experimental research, as defined by Sreekumar (2026), deviates from a true experimental approach by focusing on a single group rather than both an experimental and a control group. In particular, the study was anchored in a one-group pretest-posttest design to help establish a probable causal relationship between the variables studied.

In addition, the quasi-experimental research design was deemed essential since the participants in the study are part of one class group. The lack of another class group to serve as either the experimental or control group was also considered in this study.

Locale of the Study

The study was conducted in two public elementary schools in the Schools Division of Ilocos Norte, Adams-Pagudpud District. This public elementary school is located in the municipality of Pagudpud, situated at the northernmost tip of the province of Ilocos Norte.

Since the researcher was an immediate teacher at the said school, the accessibility of the respondents was one of the factors considered in this study. Moreover, the researcher considered the learners within their school as potential participants in this study to help address their struggles with listening and comprehension.

Population and Sampling Procedure

This study involves 43 Grade 6 learners from the previously identified schools. They were purposively selected based on the needs of the study and were considered befitting, as they are the researcher's immediate learners. Through rigorous observations, the researcher identified these learners as potentially providing rich background data for the study.

Research Instruments

In conducting this study, the researcher used a 20-item multiple-choice pretest and posttest assessment adopted from the Department of Education's Phil-IRI Manual (2018). The tool consisted of three short literary passages, each with a varying number of multiple-choice process questions.

Data Gathering Procedure

Throughout the course of this study, the researcher ensured that a systematic process was followed in gathering the data. Clearance to conduct the study was sought from the Schools Division Superintendent. Likewise, permission was also sought from the respective school heads of the three selected schools. Moreover, since the participants are minors, consent and assent forms were provided to their parents or guardians to obtain their approval for the children's participation.

A pretest was conducted to assess the learners' initial level of comprehension. The results were analyzed prior to the introduction of the intervention. Then, for a span of three weeks, the digitized storytelling material was implemented. Learners were immersed in the intervention material to improve their listening skills and comprehension. After that, a posttest assessment was administered.

Statistical Treatment of Data

Statistical analysis, limited to frequency counts, percentages, means, and a paired t-test, was used to analyze the data gathered. The pretest and posttest results were grouped into ranges and interpreted descriptively, as shown below.

Range of Scores	Descriptive Interpretation
0-7	Frustrated
13-Aug	Instructional
14-20	Independent

Meanwhile, to determine the effectiveness of the intervention, a paired t-test was used. This helped in comparing the pretest and posttest results. The p-value was also computed and compared with the 0.05 and 0.01 significance levels.

Ethical Considerations

The researcher ensured that ethical considerations were upheld to the highest degree. Pertinent papers, including approvals from the division superintendent and the school heads, parental consent and assent forms, and letters to the participating learners, were furnished and obtained. Likewise, the respondents' confidentiality and anonymity were not disclosed, in accordance with the Data Privacy Act.

Meanwhile, personal identifiers such as names, age, and sex were not disclosed in this study. They were also given the option to refrain from participating and/or withdraw from any part of the data-gathering process. Moreover, no monetary incentives and gifts of any sort were given to the participants.

RESULTS AND DISCUSSIONS

This chapter presents the results of the study on how digitized storytelling enhances learners' listening skills.

Pretest and Posttest Results

This section presents the pretest and posttest results for 43 Grade 6 learners before and after the implementation of the digitized storytelling intervention. It vividly shows the disparity between the participants' raw scores in the 20-item multiple-choice comprehension questions. The participants' scores were grouped in three categories: frustrated, instructional, and independent.

Table 1. Grade 6 learners' pretest and posttest scores.

Comprehension Level	Pretest		Posttest	
	Frequency	Percentage	Frequency	Percentage
Frustrated (0-8)	28	65.12	7	16.28
Instructional (9-13)	8	18.6	21	48.84
Independent (14-20)	7	16.28	15	34.88
Mean	7.63		11.65	

The data reveal a statistically meaningful shift in Grade 6 learners' reading comprehension performance following intervention. Pretest results indicated that 65.12% of students functioned at the frustrated level (0-8 points), suggesting significant reading difficulties that impeded independent learning. Post-intervention, this proportion decreased dramatically to 16.28%, representing a 48.84-percentage-point reduction. Concurrently, students performing at the instructional level (9-13 points) increased from 18.60% to 48.84%, while independent-level readers (14-20 points) more than doubled from 16.28% to 34.88%. The mean score improvement from 7.63 to 11.65 (52.69% increase) demonstrates substantive learning gains.

These findings align with contemporary research emphasizing targeted literacy interventions. According to Connor et al. (2019), individualized reading instruction significantly improves comprehension outcomes for struggling readers, particularly when interventions address specific skill deficits. Similarly, Vaughn et al. (2016) documented that explicit comprehension strategy instruction yields moderate-to-large effect sizes for intermediate-grade students with reading difficulties. The movement of students from the frustrated to the instructional and independent levels suggests that the intervention provided appropriate scaffolding, consistent with Vygotsky's zone of proximal development theory (Shabani, 2016).

The persistence of 16.28% at the frustrated level warrants attention, indicating that differentiated, intensive support remains necessary for readers who are persistently struggling (Wanzek et al., 2011). Future interventions should incorporate multicomponent approaches combining vocabulary development, fluency practice, and metacognitive strategy instruction (Peng et al., 2019). These results underscore the efficacy of evidence-based interventions in upskilling learners' listening and comprehension skills while highlighting the need for continued support for at-risk learners.

Effectiveness of Digitized Storytelling in Enhancing Learners' Listening Comprehension Skills Based on the Pretest and Posttest Results

Table 2 shows the paired t-test results comparing the pretest and posttest results of the Grade 6 learners. The findings indicate a possible difference in their comprehension scores before and after the digitized storytelling intervention.

Table 2. Paired t-test result on the effectiveness of digitized storytelling intervention in enhancing learners' listening comprehension skills.

	Mean Score	Standard Deviation	t-statistics	Critical t-value	p-value	Interpretation
Pretest	7.63	4.11	12.06	2.7	<0.0001**	Significant
Posttest	11.65	3.92				
**significant at α=0.01						

The paired t-test results provide compelling evidence for the effectiveness of digitized storytelling as a listening comprehension intervention. The pretest mean of 7.63 (SD = 4.11) increased substantially to 11.65 (SD = 3.92), representing a 52.69% improvement in learner performance. The t-statistic of 12.06 exceeded the critical value of 2.70 at $\alpha = 0.01$, with $p < 0.0001$, indicating highly significant differences between pretest and posttest scores. This robust statistical finding demonstrates that digitized storytelling meaningfully enhanced listening comprehension skills beyond chance variation.

These results corroborate contemporary research emphasizing multimodal learning approaches. Lim et al. (2022) found that digital storytelling significantly improves listening comprehension and vocabulary retention in intermediate learners, with effect sizes ranging from 0.78 to 1.12. Similarly, Nabirye (2025) documented that technology-enhanced narrative instruction promotes deeper processing and sustained engagement, particularly when incorporating visual and auditory elements. Khan et al. (2023) demonstrated that digital storytelling interventions yield greater gains for struggling listeners than traditional instruction, thereby supporting inclusive literacy practices.

The reduced standard deviation in posttest scores (3.92 vs. 4.11) suggests improved consistency across the learner population, indicating the intervention benefited diverse students. This finding aligns with Universal Design for Learning principles, which emphasize multimodal presentations that accommodate diverse learning preferences (Morgan, 2024). However, practitioners should recognize that intervention success depends on implementation fidelity, instructional clarity, and appropriate scaffolding (Bergstrand Othman, 2025).

CONCLUSIONS

Based on the findings, this study concludes that Grade 6 learners demonstrated predominantly frustrated-level listening comprehension skills prior to the digitized storytelling intervention, with the majority experiencing significant difficulties that hindered independent learning. Following the three-week implementation, learners exhibited marked improvement, with the majority transitioning to instructional and independent comprehension levels, indicating enhanced listening proficiency and reduced learning barriers.

The paired t-test analysis confirms a statistically significant difference between pretest and posttest performance, establishing that digitized storytelling effectively enhanced learners' listening comprehension skills. The

intervention's multimodal nature, such as integrating visual and auditory elements, provided appropriate scaffolding that addressed diverse learning needs and promoted deeper cognitive processing. The substantial reduction in frustrated-level learners and corresponding increases in instructional and independent levels underscore the intervention's efficacy in fostering meaningful literacy development.

However, the persistence of some learners at the frustrated level suggests that while digitized storytelling benefits the majority, differentiated and intensive support remains essential for persistently struggling readers.

Overall, digitized storytelling is a pedagogically sound, evidence-based approach for improving listening comprehension among intermediate-grade learners, warranting broader implementation and continued refinement to maximize inclusivity and sustain learning outcomes.

RECOMMENDATIONS

Based on the conclusions drawn in this study, the researcher recommends that learners should engage with digitized storytelling materials for 20 minutes, three times weekly, to reinforce listening comprehension skills. Students at the frustrated level must participate in supplementary small-group sessions that combine vocabulary exercises and metacognitive strategies. Likewise, they shall maintain reflection journals documenting progress and challenging content to develop self-monitoring habits and autonomous learning behaviors.

Moreover, teachers can integrate digitized storytelling into literacy instruction for 45-minute sessions, three times weekly over six-week cycles. Teachers are also encouraged to conduct biweekly diagnostic assessments to identify struggling learners requiring differentiated support. Participate in quarterly professional development workshops on technology integration and Universal Design for Learning to enhance implementation fidelity and instructional effectiveness.

Parents are also encouraged to dedicate 15 minutes daily to home-based listening activities, such as digital storytelling applications or audiobooks. They could discuss story elements with children in their home language to strengthen comprehension. Attending biannual school literacy workshops to understand intervention strategies and receive guidance on effectively supporting children's listening development at home is also highly recommended.

On the other hand, school heads are advised to allocate a substantial amount of annual instructional budgets toward digitized storytelling resources, devices, and connectivity. They can also establish quarterly monitoring systems to evaluate intervention fidelity and learner progress. Mandating semi-annual professional development for intermediate-grade teachers and creating monthly collaborative learning communities for resource sharing and continuous instructional improvement is also viable.

Meanwhile, instructional material developers should design culturally responsive digitized storytelling modules for Grades 4-6 with scaffolded difficulty levels that address the frustrated, instructional, and independent stages. They can include embedded vocabulary support, visual cues, and interactive checks aligned with curriculum standards, and can conduct usability testing with a larger group of learners across diverse contexts before finalization.

Furthermore, future researchers can conduct longitudinal studies spanning one academic year with a larger group of participants across multiple districts using true experimental designs with control groups. They may try exploring moderating variables, including socioeconomic status and home language, and even employ mixed-methods approaches that incorporate qualitative data to understand learners' experiences and identify optimal intervention conditions.

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