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Ventriloquist Voice in Digital Cross-Cultural Storybooks for Elementary Listening Comprehension

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ABSTRACT

Listening comprehension is an essential language skill, yet some elementary students have difficulty following spoken narratives and identifying important information. Although digital storytelling supports language learning, the integration of culturally contextualized narratives and multimodal auditory presentation in elementary listening instruction remains underexplored. This study examined changes in students' narrative listening comprehension following the implementation of a Digital Cross-Cultural Storybook instructional package. A one-group pretest–posttest design involved 25 sixth-grade students at an elementary school in Palopo, Indonesia. Students participated in six instructional sessions. Data were collected using a 20-item listening comprehension test covering five indicators and analyzed using descriptive statistics, paired-samples tests, effect size estimation, and normalized gain (N-Gain), which represents improvement relative to the maximum possible gain. The mean score increased by 9.60 points, with a large within-group effect size (Cohen's d_z = 2.53). Most students improved, although N-Gain results indicated varying levels of progress. These findings provide preliminary evidence that the integrated package may support narrative listening comprehension. The study contributes an instructional approach combining cross-cultural stories, contextual illustrations, audio narration, and differentiated character voices. However, the contribution of each component requires further investigation through controlled comparative research.

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1. INTRODUCTION

Listening comprehension is an essential receptive language skill that contributes to the development of oral language, literacy, and other communication abilities [1], [2]. At the elementary school level, students are expected not only to recognize explicitly stated information in spoken narratives but also to identify characters and settings, sequence events, establish cause-and-effect relationships, infer characters' feelings and intentions, and understand the underlying messages of stories [3]. These processes require sustained attention, information processing, inferencing, and the integration of information through working memory [4]. Oral language comprehension also provides an important foundation for literacy development because meaning-making processes involved in listening are closely related to reading comprehension [5], [6]. Nevertheless, listening comprehension presents particular challenges for young learners because spoken information is transient and cannot always be revisited at the learner's own pace. The importance of supporting these skills is also reflected in broader literacy concerns in Indonesia. PISA 2022 reported an average Indonesian reading score of 359, compared with the OECD average of 476, with only approximately 25% of Indonesian students achieving Level 2 or above [7]. Although these results measure reading rather than listening comprehension, they highlight the broader need to strengthen students' ability to process and construct meaning from information.

In classroom practice, narrative listening comprehension may be constrained by the way stories are delivered and the conditions in which students listen. Previous research has demonstrated that background noise can interfere with children's narrative listening comprehension [6], while working memory and language exposure contribute to the development of comprehension abilities [3]. Auditory interference may impose additional cognitive demands, making it more difficult for students to retain details and establish connections between narrative events [8]. Similar concerns emerged from informal preliminary observations at SDN 24 Temmalebba, where story-listening activities primarily involved teachers and students taking turns reading textbook passages aloud, followed by comprehension questions. During these activities, some students appeared to have difficulty maintaining attention and recalling information about the stories they had heard. Although reading aloud provided opportunities for participation, the activities offered limited support for distinguishing characters, following narrative sequences, and understanding relationships between events. These observations indicate a need to explore instructional media that present stories through clearer auditory delivery and complementary visual support.

Digital storytelling offers opportunities to combine narration, illustrations, written text, and other multimedia features to support children's engagement with narrative content and language development [9], [10]. Experimental evidence suggests that combining prerecorded narration, illustrations, and visual signaling can support children's story recall and comprehension [11]. However, the educational value of digital storytelling depends not simply on the use of technology but also on the alignment of multimedia features with instructional objectives and learners' cognitive needs [12], [13]. The development and selection of digital learning media should therefore consider content suitability,

turnitin Page 9 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

instructional quality, and the extent to which media features facilitate the intended learning outcomes [14]. Within this context, differentiated character voices represent a potentially useful auditory feature. Variations in intonation, speech rate, vocal expression, and pauses can provide cues that help listeners recognize character transitions, interpret emotional expressions, and follow narrative developments. Previous studies have demonstrated that prosodic variation influences children's listening comprehension [15], while pitch variation and pauses during oral storybook reading are associated with children's understanding of spoken narratives [16]. Speaker identity and vocal characteristics also contribute to spoken language processing by providing information that helps listeners distinguish speakers and interpret linguistic messages [17], [18].

Building on these findings, the present study introduces ventriloquist voice as an operational term for a differentiated character-voicing technique integrated into a Digital Cross-Cultural Storybook. In this study, the term refers to the use of distinct and consistent vocal characteristics, including intonation, speech rate, and expressive patterns, by a single narrator portraying multiple characters. Unlike conventional narration that primarily delivers a story through a relatively uniform voice, this technique emphasizes character-specific vocal differentiation to make speaker transitions and narrative interactions more perceptible to young listeners. It is conceptually related to expressive read-aloud and character voicing but is operationalized in this study through the systematic differentiation of multiple characters' voices within digitally presented cross-cultural narratives. The auditory cues are intended to function as narrative support rather than independent learning outcomes. Nevertheless, the storybook also incorporates illustrations, digital presentation, and culturally contextualized narratives. Previous studies have examined electronic storybooks and multimedia support for narrative comprehension [9], [12], [13] while cross-cultural digital storytelling research has explored language development and intercultural awareness [19], [20]. Digital storytelling has also been used to support language learning and engagement with cultural diversity [19], [20], including story-based learning experiences in Indonesia [21]. Despite these developments, the available evidence remains insufficient to establish how differentiated character voices, when integrated with visual and cross-cultural narrative features, may support elementary school students' listening comprehension. In particular, the contribution of an integrated digital storytelling package combining character-specific vocal expression and cross-cultural narratives to students' understanding of characters, narrative sequences, and relationships between events warrants further investigation.

Accordingly, this study examines changes in elementary school students' narrative listening comprehension following six instructional sessions using a Digital Cross-Cultural Storybook integrated with ventriloquist voice. The study addresses three analytical questions: (1) whether students' listening comprehension scores differ significantly between the pretest and posttest; (2) how substantial the learning gains are based on normalized gain (N-Gain); and (3) what magnitude of change is indicated by the estimated effect size. The contribution of this study lies in providing preliminary empirical evidence concerning the use of differentiated character voices within an integrated digital and cross-cultural storytelling environment. By examining the combined instructional package, this

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study does not claim to isolate the independent effect of vocal differentiation but rather explores the potential of integrating auditory and visual narrative features to support elementary school students' listening comprehension. The findings are expected to inform the design of digital storytelling media and provide practical considerations for teachers seeking to improve narrative listening activities in elementary school language instruction

2. METHOD

2.1. Research Design and Setting

This study employed a quantitative approach using a pre-experimental one-group pretest–posttest design to examine changes in elementary school students' narrative listening comprehension following instruction with a Digital Cross-Cultural Storybook integrating differentiated character voices [22]. The study was conducted in Grade VI B at SDN 24 Temmalebba, Palopo City, South Sulawesi, Indonesia. The research involved administering a pretest before the instructional intervention and a posttest after six instructional sessions. Changes in students' listening comprehension were examined by comparing their scores across the two measurement occasions.

A comparison group was not included in this study. Consequently, the research was designed to examine changes in listening comprehension following exposure to the integrated instructional media rather than establish the independent causal contribution of differentiated character voices. The intervention combined digital presentation, cross-cultural narratives, contextual illustrations, audio narration, and differentiated character voices. Therefore, the findings were interpreted in relation to the overall instructional package.

2.2. Participants

The participants were 30 students enrolled in Grade VI B at SDN 24 Temmalebba. Of the 30 initially listed students, five had zero scores recorded for both the pretest and posttest. A review of the assessment administration records confirmed that these entries represented missing assessment data rather than actual test performance. Therefore, these five students were excluded from the paired analysis, resulting in a final analytical sample of 25 students with complete pretest and posttest scores.

The exclusion was based on the absence of valid assessment records rather than students' achievement levels. The primary analysis followed a complete-case approach, including only students with available scores at both measurement occasions. Accordingly, the possibility of selection bias associated with missing assessment data was considered when interpreting the findings.

2.3. Instructional Intervention and Research Procedure

The intervention consisted of six instructional sessions using the Digital Cross-Cultural Storybook. The media combined cross-cultural narratives, contextual illustrations, and audio narration. Differentiated character voices were incorporated through variations in vocal qualities, including intonation, speaking pace, pauses, and expressive patterns. These characteristics were maintained consistently across individual characters to help

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turnitin Page 11 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

students recognize speaker transitions, distinguish characters, and follow narrative interactions.

During the instructional sessions, students engaged with stories and completed listening activities addressing five comprehension indicators: identifying explicitly stated information, sequencing narrative events, recognizing cause-and-effect relationships, drawing inferences about characters' actions and emotions, and interpreting narrative messages. These activities provided opportunities for students to process auditory and visual information while constructing an understanding of the stories.

The research procedure comprised instructional media evaluation, participant enrollment, pretest administration, six instructional sessions, posttest administration, data screening, and statistical analysis, as illustrated in Figure 1.

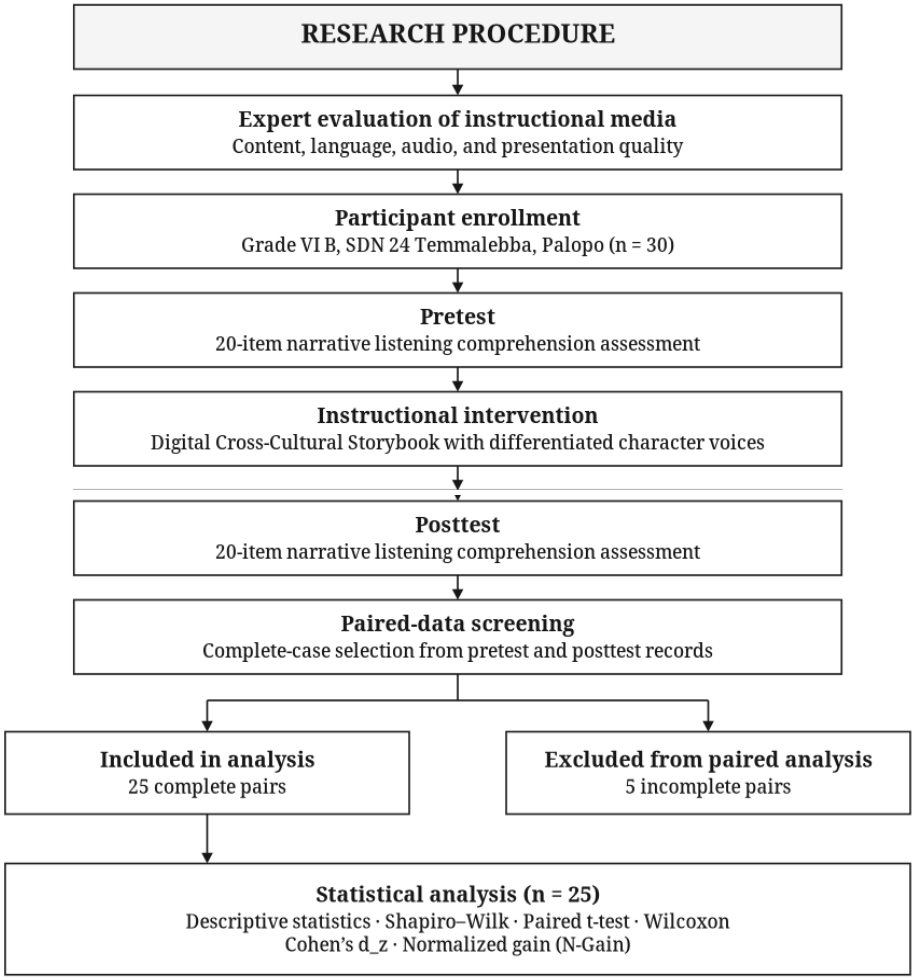

Figure 1. Research procedure and participant inclusion flowchart

2.4. Research Instruments and Measurement

Students' narrative listening comprehension was assessed using a 20-item test covering five indicators: (1) identifying explicit information, (2) sequencing events, (3) recognizing cause-and-effect relationships, (4) drawing inferences about characters, and (5) interpreting narrative messages. Assessment scores were expressed on a scale of 0–100, with higher scores indicating better narrative listening comprehension.

turnitin Page 11 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

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The instructional media were evaluated by subject matter and language experts, as well as media experts, using five-point Likert-scale assessment instruments. The content and language evaluation comprised 31 indicators organized into five dimensions, whereas the media evaluation consisted of 34 indicators across six dimensions. The media assessment covered audio quality, character voice differentiation, and prosodic features. These evaluations examined content appropriateness, linguistic clarity, presentation quality, and technical suitability for elementary school narrative listening instruction.

2.5. Validity and Reliability

Content validity was examined through expert judgment to assess the alignment of the assessment items with the five indicators of narrative listening comprehension. The evaluation considered the relevance of the items to their intended indicators, linguistic clarity, and suitability for elementary school students. Expert evaluations of the instructional media were conducted separately to assess the appropriateness of the narrative content, language, illustrations, audio presentation, and differentiated character voices.

Item analysis was conducted using responses from 30 students to examine item difficulty, item discrimination, and internal consistency. Item difficulty was evaluated using the proportion of students answering each item correctly, while item discrimination was examined to determine the extent to which individual items distinguished between students with different levels of performance. Internal consistency was estimated using the Kuder–Richardson Formula 20 (KR-20), which is appropriate for dichotomously scored items.

The instrument evaluation and the intervention were treated as separate analytical procedures. The assessment instrument was evaluated for its measurement characteristics, whereas changes in listening comprehension were analyzed using the 25 students with complete pretest and posttest scores.

2.6. Data Analysis

Data analysis included descriptive statistics comprising means (*M*), standard deviations (*SD*), minimum scores, and maximum scores. The normality of paired score differences was assessed using the Shapiro–Wilk test [23]. Differences between pretest and posttest scores were examined using a two-tailed paired-samples *t*-test at a significance level of 0.05, accompanied by 95% confidence intervals. The Wilcoxon signed-rank test was also performed as a complementary analysis to examine the consistency of the findings when the normality assumption for paired differences was not satisfied [24].

The magnitude of change was estimated using Cohen's *d*_z for paired observations [25]. This measure was calculated by dividing the mean difference between posttest and pretest scores by the standard deviation of the paired differences. Students' learning progress was additionally assessed using individual normalized gain (N-Gain) scores. N-Gain was calculated by dividing the difference between posttest and pretest scores by the maximum possible score minus the pretest score. The resulting values were

turnitin Page 12 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

turnitin Page 13 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

classified into low, moderate, and high categories [26]. All statistical analyses were performed using Python with the SciPy library [27].

3. RESULTS AND DISCUSSION

This section presents the findings concerning instrument quality, changes in students' narrative listening comprehension, statistical comparisons between pretest and posttest scores, and individual normalized learning gains. Thirty students were initially listed, but the main paired analysis included 25 students with complete assessment records. Five students with missing pretest and posttest data were excluded from the paired analysis. The findings are interpreted in relation to the integrated Digital Cross-Cultural Storybook intervention, without attributing the observed changes exclusively to differentiated character voices.

3.1. Test Instrument Quality

The 20-item listening comprehension instrument was examined through item difficulty, item discrimination, and internal consistency analyses. Table 1 presents the results of the item analysis conducted using responses from 30 students.

Table 1. Item Analysis Results of the Listening Comprehension Instrument (n = 30)

Item	p	Difficulty category	rpb	Decision
1	0.87	Easy	0.52	Retain
2	0.87	Easy	0.34	Retain
3	0.73	Easy	0.62	Retain
4	0.53	Moderate	0.77	Retain
5	0.80	Easy	0.58	Retain
6	0.87	Easy	0.52	Retain
7	0.20	Difficult	0.15	Review/revise
8	0.77	Easy	0.40	Retain
9	0.83	Easy	0.20	Review/revise
10	0.87	Easy	0.52	Retain
11	0.93	Easy	0.60	Retain
12	0.73	Easy	0.45	Retain
13	0.53	Moderate	0.77	Retain
14	0.90	Easy	0.67	Retain
15	0.93	Easy	0.60	Retain
16	0.53	Moderate	0.77	Retain
17	0.87	Easy	0.52	Retain
18	0.53	Moderate	0.60	Retain
19	0.53	Moderate	0.77	Retain
20	0.87	Easy	0.52	Retain

Note. p = proportion of correct responses; rpb = uncorrected point-biserial item–total correlation.

As shown in Table 1, 14 items were classified as easy, five as moderately difficult, and one as difficult. Eighteen items were designated for retention, whereas Items 7 and 9 were identified for further review because their discrimination indices were relatively low (0.15 and 0.20, respectively). Item 2 also showed a comparatively lower discrimination coefficient (0.34), although it was retained in the original analysis. The internal

turnitin Page 13 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

turnitin Page 14 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

consistency coefficient estimated using KR-20 was 0.874, indicating high internal consistency for the instrument.

Although the reliability coefficient was satisfactory, the item distribution indicates a limitation in the instrument's ability to differentiate students across a broad range of comprehension levels. The predominance of easy items is particularly relevant because the mean pretest score was already 74.80, while the maximum posttest score reached 100. This pattern suggests a potential ceiling effect, whereby students with relatively high initial scores had limited opportunities to demonstrate further improvement. Consequently, the observed score changes and normalized gains should be interpreted cautiously.

The two items identified for review were included in the reported 20-item analysis. Their inclusion means that the overall results should be interpreted in light of the limitations in item discrimination. The available analysis does not establish whether excluding these items would produce different pretest–posttest results. In addition, the reported point-biserial coefficients were uncorrected item–total correlations; corrected item–total correlations would provide a more appropriate basis for subsequent instrument refinement. Previous research on educational test development has also emphasized the importance of examining item difficulty and discrimination when evaluating assessment quality.

3.2. Descriptive Statistics and Pretest–Posttest Changes

Descriptive statistics were calculated for the 25 students with complete pretest and posttest records. Table 2 presents the mean scores, standard deviations, minimum and maximum values, score differences, and normalized gains.

Table 2. Descriptive Statistics for Pretest and Posttest Scores (n = 25)

Variable	N	M	SD	Minimum	Maximum
Pretest	25	74.80	10.46	45	90
Posttest	25	84.40	10.24	55	100
Difference	25	9.60	3.80	0	15
N-Gain	25	0.442	0.260	0.000	1.000

The mean listening comprehension score increased from 74.80 (SD = 10.46) at pretest to 84.40 (SD = 10.24) at posttest, representing an average increase of 9.60 points. Of the 25 analyzed students, 24 (96%) obtained higher posttest scores, one student (4%) maintained the same score, and none experienced a decrease. Individual score changes are presented in Figure 2.

turnitin Page 14 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

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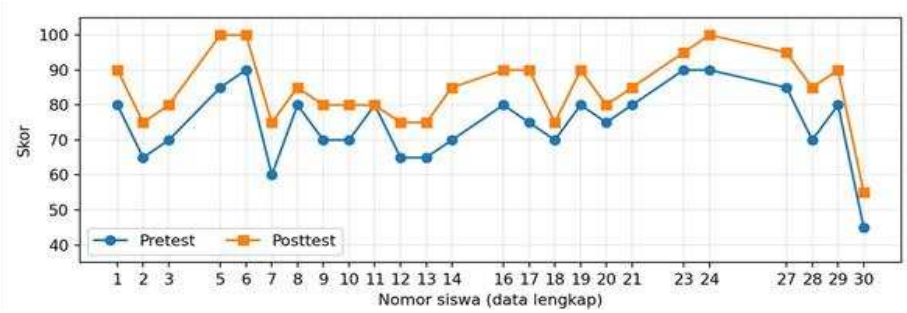

Figure 2. Individual Pretest and Posttest Score Changes for the 25 Complete Pairs

The descriptive findings indicate an overall upward pattern in students' listening comprehension scores following the six instructional sessions. However, the relatively high initial mean and the presence of students approaching the maximum score suggest that the available assessment scale provided unequal opportunities for improvement across different initial achievement levels. This consideration is particularly important when interpreting the magnitude of individual gains.

3.3. Statistical Analysis of Pretest–Posttest Differences

The normality assumption for the paired-samples analysis was examined using the Shapiro–Wilk test on the difference scores. Table 3 presents the normality test result.

Table 3. Shapiro–Wilk Normality Test for Paired Score Differences

Variable	W	p
Pretest–posttest differences	0.838	0.001

The Shapiro–Wilk test indicated that the distribution of paired score differences deviated significantly from normality ($W = 0.838$, $p = 0.001$). Accordingly, the paired-samples t-test was accompanied by the Wilcoxon signed-rank test as a complementary analysis. Table 4 summarizes the results of both statistical procedures.

Table 4. Statistical Comparison of Pretest and Posttest Scores

Indicator	Value
Mean difference	9.60
SD of differences	3.80
95% CI	[8.03, 11.17]
Paired-samples t-test	$t(24) = 12.64$
Two-sided p-value	< 0.001
Wilcoxon signed-rank test	$W = 0$; $p < 0.001$
Cohen's dz	2.53

As presented in Table 4, the paired-samples t-test indicated a statistically significant difference between pretest and posttest scores, $t(24) = 12.64$, $p < 0.001$, with a mean increase of 9.60 points (95% CI [8.03, 11.17]). The Wilcoxon signed-rank test also indicated a statistically significant difference ($W = 0$, $p < 0.001$). The Wilcoxon analysis

turnitin Page 15 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

turnitin Page 16 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

excluded the single zero-difference pair under the default zero-handling procedure, leaving 24 nonzero paired differences for the rank-based comparison.

The estimated Cohen's d_z of 2.53 indicates a large standardized within-group change. Nevertheless, this estimate should be interpreted cautiously because the standard deviation of the paired differences was relatively small, the initial scores were already high, and the assessment contained a predominance of easy items. The standardized magnitude therefore does not independently establish the causal effectiveness of the instructional media.

The consistency of the parametric and nonparametric findings supports the conclusion that the analyzed students obtained higher scores at posttest than at pretest. However, because the study did not include a comparison group, alternative explanations such as test familiarity, repeated exposure to narrative tasks, maturation, and other instructional experiences during the intervention period cannot be excluded [22].

3.4. Normalized Learning Gains

Individual normalized gain scores were calculated to describe the proportion of possible score improvement achieved by each student relative to the maximum score of 100. The mean N-Gain was 0.442 (SD = 0.260), which falls within the moderate category according to the classification adopted in the study [26].

Table 5. Distribution of Individual N-Gain Categories

Category	Range	Frequency	Percentage
Low	< 0.30	9	36.0%
Moderate	0.30 to < 0.70	13	52.0%
High	≥ 0.70	3	12.0%
Total	—	25	100.0%

As shown in Table 5, 13 students (52.0%) achieved moderate normalized gains, nine (36.0%) achieved low gains, and three (12.0%) achieved high gains. The distribution indicates that the proportion of possible improvement differed across students, although the majority were classified within the moderate category. Figure 3 illustrates the distribution of individual N-Gain categories.

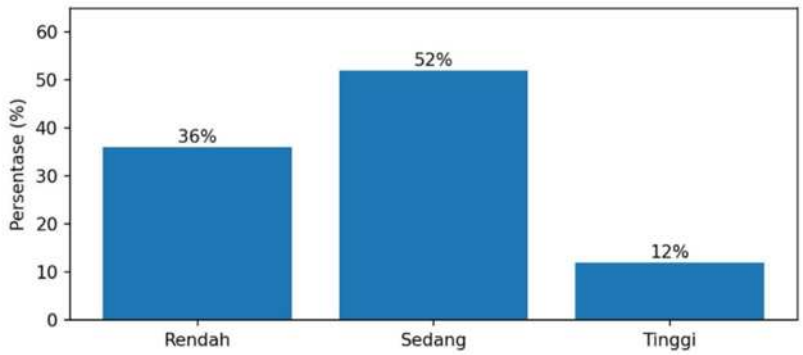

Figure 3. Distribution of Individual N-Gain Categories Among the 25 Students

turnitin Page 16 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

turnitin Page 17 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

The mean N-Gain provides an additional description of score improvement relative to the remaining points available before reaching the maximum score. However, its interpretation is influenced by students' initial performance. Students with high pretest scores have less room for improvement, whereas students with lower initial scores have greater opportunities to obtain higher normalized gains. Therefore, the moderate mean N-Gain should not be interpreted independently of the relatively high pretest mean and the potential ceiling effect.

3.5. Discussion

The main finding of this study was that students' narrative listening comprehension scores were higher after six instructional sessions using the integrated Digital Cross-Cultural Storybook. The average increase of 9.60 points, the statistically significant paired comparisons, and the moderate mean N-Gain provide preliminary evidence of changes in listening comprehension performance following the intervention. These findings address the study's objective of examining pretest–posttest changes but do not establish that differentiated character voices independently produced the observed improvement.

One possible explanation for the observed pattern concerns the combination of auditory and visual narrative information. Digital storybooks can integrate narration, illustrations, and written information to support children's engagement with stories and the construction of narrative meaning [9], [11]. When these elements are appropriately aligned, illustrations may provide contextual information while narration presents the sequence of events. In the present intervention, differentiated character voices added another auditory feature by varying intonation, speaking pace, pauses, and expressive patterns across characters. These features were intended to make speaker transitions and character interactions more distinguishable. Previous research has associated prosodic variation with children's listening comprehension [15], while pitch variation and pauses have been linked to comprehension during oral storybook reading [16]. Speaker identity and vocal characteristics may also provide cues that help listeners distinguish speakers during spoken language processing [17], [18]. The present findings are compatible with the potential relevance of these auditory features, although their independent contribution was not examined.

The digital and cross-cultural dimensions also formed part of the instructional context. Previous research has explored digital storytelling as a means of supporting language development and engagement with cultural diversity [19]–[21]. Research on electronic storybooks has further indicated that multimedia support can contribute to narrative comprehension, although outcomes depend on the design and alignment of the included features [28], [29]. The present study extends this area by examining listening comprehension following instruction with cross-cultural digital narratives that incorporate differentiated character voices. Its contribution lies in examining this combination within an elementary school listening comprehension context rather than establishing a separate effect for each media component.

The variation in individual learning gains also deserves attention. Although 24 students obtained higher posttest scores, the N-Gain distribution showed that improvement

turnitin Page 17 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

turnitin Page 18 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

was not uniform. This variation may partly reflect differences in initial performance and the limited remaining score range for students who began with relatively high pretest scores. The predominance of easy items may also have reduced the instrument's ability to capture more advanced differences in narrative comprehension. Studies of narrative comprehension have emphasized that students' understanding may depend on the demands of the story, the characteristics of the learners, and the way narrative information is presented [28], [29]. However, the present study did not examine the five comprehension indicators separately or establish whether particular indicators improved more than others. Consequently, it is not possible to determine which component of narrative listening comprehension contributed most to the overall score increase. More broadly, comprehension research emphasizes that constructing meaning involves multiple interacting processes and that no single model fully accounts for the range of processes involved in comprehension [30].

Alternative explanations must also be considered. Repeated exposure to the assessment format may have increased students' familiarity with the listening tasks, while the novelty of digital storytelling and the instructional support provided during classroom activities may have influenced their engagement. Maturation and other classroom experiences during the intervention period may also have contributed to changes in performance. Since the research design did not include a comparison group, these explanations cannot be separated from the potential contribution of the integrated instructional media.

Overall, the findings provide preliminary evidence that narrative listening comprehension scores changed following the six instructional sessions. They also suggest that combining cross-cultural stories, contextual illustrations, audio narration, and differentiated character voices is a potentially useful approach to organizing elementary school listening activities. Nevertheless, the magnitude and interpretation of these changes should be considered alongside the limitations of the instrument and the pre-experimental design.

3.6. Limitations and Implications

This study has several methodological limitations. First, the one-group pretest–posttest design did not include a comparison group, limiting the ability to attribute observed score changes to the intervention. Second, only 25 of the 30 initially listed students had complete pretest and posttest records. The complete-case approach may have introduced selection bias if the excluded students differed systematically from those included in the analysis. Third, the assessment instrument contained 14 easy items, five moderately difficult items, and only one difficult item. Combined with the relatively high pretest mean of 74.80 and the maximum posttest score of 100, this distribution suggests a potential ceiling effect that may have restricted the measurement of further improvement. Fourth, two items had relatively low discrimination indices and were retained in the reported analysis. The sensitivity of the findings to their removal was not established. Finally, the study did not isolate the contribution of differentiated character voices from the

turnitin Page 18 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

turnitin Page 19 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

other components of the digital storybook, and the potential influence of repeated testing could not be ruled out.

The findings have implications for the design of digital storytelling activities in elementary school language instruction. Integrating differentiated character voices with contextual illustrations and cross-cultural narratives may provide teachers with an alternative way of presenting spoken stories and organizing listening comprehension activities. However, instructional decisions should consider students' initial comprehension levels and the specific difficulties identified through assessment rather than assume that all students benefit equally from the same approach. Future studies should examine changes across the five listening comprehension indicators, report expert evaluation results, and use more balanced assessment items with stronger discrimination characteristics.

Further research should employ a quasi-experimental or experimental design that compares differentiated character voices with a single-narrator condition while keeping story content, illustrations, and instructional procedures consistent. Such a design would provide stronger evidence regarding the independent contribution of vocal differentiation. Future investigations should also consider equivalent pretest and posttest forms, delayed assessments, and sensitivity analyses involving items with low discrimination indices. Examining the relationship between initial achievement and subsequent learning gains would also help clarify individual differences and the potential influence of ceiling effects.

4. CONCLUSION

This study examined changes in elementary school students' narrative listening comprehension following the implementation of a Digital Cross-Cultural Storybook instructional package. The findings indicated an overall improvement in students' listening comprehension, providing preliminary evidence of the potential of integrating cross-cultural narratives, contextual illustrations, audio narration, and differentiated character voices into digital storytelling activities. The study contributes to the literature by illustrating how culturally contextualized and multimodal materials can be incorporated into elementary listening instruction. Practically, the instructional package offers teachers an alternative resource for developing engaging narrative listening activities that connect learning with students' cultural contexts. However, the findings should be interpreted cautiously because the study involved a relatively small complete-case sample and a one-group pretest–posttest design without a comparison group; therefore, the observed improvement cannot be attributed exclusively to the instructional package or any individual component. Future research should employ larger samples and controlled comparative designs to examine the effectiveness of the integrated package, investigate the specific contribution of differentiated character voices while controlling other instructional components, and assess the retention of listening comprehension skills through delayed testing.

turnitin Page 19 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464

GENERATIVE AI STATEMENT

AI-assisted tools were used to support manuscript drafting, language refinement, and proofreading. The authors reviewed and verified the content and take full responsibility for the accuracy and integrity of the article.

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turnitin Page 21 of 21 - Integrity Submission Submission ID trn:oid:::3728:386838464