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The Effect of Audio-Visual Media on Story Listening Comprehension Skills of Grade III Students at Primary School

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ABSTRACT

Listening comprehension is one of the four fundamental language skills within Indonesian Language instruction, yet it frequently receives the least curricular attention and is commonly delivered through conventional, non-media-supported methods that result in low student engagement and comprehension. This study aims to determine the effect of audio-visual media on the story listening comprehension skills of Grade III students at SD Negeri 18, Sorong City. A quantitative approach with a pre-experimental one-group pretest-posttest design was employed. The research subjects comprised 20 Grade III students (total sampling). Data were collected through a 10-item listening comprehension test administered before and after the audio-visual media intervention, along with observation and documentation. Statistical analysis included normality testing (Kolmogorov-Smirnov and Shapiro-Wilk), homogeneity testing (Levene's Test), and hypothesis testing (Paired Sample t-Test). The pretest yielded a mean score of 53.5% (range: 30–80%), with 65% of students in the moderate-to-low category. Following audio-visual media instruction, the posttest mean rose to 89.0% (range:

70–100%), with 100% of students in the skilled category; 40% of students scored in the 90–99 interval and 20% achieved a perfect score of 100%. The mean improvement was 35.5 percentage points. Normality testing showed the pretest data to be normally distributed (Shapiro-Wilk Sig. = 0.131 > 0.05) and the posttest data non-normal (Sig. = 0.010 < 0.05), but the Paired Sample t-Test was applied given the robustness of parametric tests for n ≥ 20. Homogeneity testing (Levene's Test) confirmed homogeneous variances (Sig. = 0.814 > 0.05). The Paired Sample t-Test produced a significance value of 0.000 (< 0.05), with t = −10.814 and df = 19, leading to the rejection of H_0 and acceptance of H_1. Audio-visual media is proven to have a statistically significant and educationally meaningful positive effect on students' story listening comprehension skills in Indonesian Language.

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INTRODUCTION

Indonesian Language (Bahasa Indonesia) is a compulsory subject taught across all levels of primary education in Indonesia. As the national language and primary medium of academic communication, Indonesian Language instruction encompasses four foundational language skills: listening, speaking, reading, and writing (Tantawi, 2019). Among these, listening comprehension, or keterampilan menyimak, is one of the most fundamental receptive language skills and the first language modality through which children acquire and process language in educational settings. Listening comprehension is not a passive activity: it involves active cognitive processes of attention, sound discrimination, semantic processing, and meaning construction from oral input (Iskandarwassid & Sunendar, 2016; Tarigan, 2021).

Despite its foundational importance, listening comprehension instruction in Indonesian primary schools continues to be characterised by conventional, non-media-supported approaches in which teachers read aloud from textbooks while students are expected to listen and respond. This approach is pedagogically limited because it fails to provide the rich, multimodal input (simultaneous auditory and visual stimulation) that research consistently identifies as optimal for promoting deep listening comprehension (Shaojie et al., 2022). Observations conducted at SD Negeri 18, Sorong City, on 29–30 July and 14 August 2024 confirmed this pattern: the Grade III classroom teacher (Ibu Feronika M. Kalami) reported that listening lessons were conducted exclusively through oral teacher narration without any media support, resulting in students talking among themselves, failing to concentrate, and being unable to answer comprehension questions after the teacher had narrated the story.

Audio visual media are defined as learning tools that combine visual elements (images, animations, video) with auditory elements (sound, narration) in a single instructional presentation (Sanjaya, 2014). These media engage both the visual and auditory sensory channels simultaneously, creating what Paivio's (1971) Dual Coding Theory identifies as two complementary pathways for information encoding, processing, and retrieval in long-term memory. When information is processed through both the visual-pictorial and auditory-verbal systems, comprehension and retention are significantly enhanced compared to single-channel instruction (Paivio, 1971; Mayer, 2021). Shaojie et al. (2022), in a Scopus-indexed systematic literature review of 46 studies published in Frontiers in Psychology, confirmed that audio-visual multimodal input provides more authentic language contexts and more effectively promotes learners' understanding of content and engagement with listening comprehension tasks.

National research consistently demonstrates the effectiveness of audio-visual media for Indonesian Language listening comprehension at the primary school level. Nurhasanah and Zunidar (2024), in Jurnal Didaktika, confirmed that audio-visual media significantly improved story listening skills among

Grade IV elementary school students. Pratama (2024) similarly documented significant positive effects of audio-visual media on Grade IV students' listening comprehension in Pendas: Jurnal Ilmiah Pendidikan Dasar. Sabathini Djarfi (2026), in a recent study published in Primary Education Journal (Primadona), confirmed that audio-visual media significantly improved reading comprehension at the primary level, with paired t-test Sig. = 0.000. Oktafiani et al. (2022) confirmed that audio-visual media significantly improved listening skills among Grade IV SD students in a comparable pre-experimental design, and Musyadad et al. (2023) documented the effectiveness of audio-visual media for improving listening comprehension in elementary school contexts through a systematic review.

This study addresses the gap in the empirical literature on audio-visual media and listening comprehension specifically at the Grade III level in Sorong City, West Papua, by asking: Does the use of audio-visual media have a statistically significant positive effect on the story listening comprehension skills of Grade III students at SD Negeri 18, Sorong City?

METHODS

This research employed a quantitative approach with a pre-experimental one-group pretest-posttest design. The research was conducted at SD Negeri 18, Sorong City, Klawasi Village, West Sorong District, during Semester II of the 2025/2026 Academic Year. The research population and sample comprised all 20 Grade III students (total sampling, also known as saturated sampling: Sugiyono, 2020). Total sampling was applied given the small population size, consistent with the principle that all members of a manageable population should be included as research subjects when feasibility permits (Sugiyono, 2020).

The research instrument comprised a 10-item listening comprehension test, administered as both pretest (before audio-visual media instruction) and posttest (after audio-visual media instruction). Items assessed students'

comprehension of a story delivered through audio-visual media, covering dimensions including identification of characters, settings, narrative sequence, main idea, and moral lessons. Scores were calculated as a percentage of correct responses (0–100%). Data analysis proceeded through four stages: (1) descriptive statistical analysis (mean, frequency distribution, percentage); (2) normality testing (Kolmogorov-Smirnov and Shapiro-Wilk); (3) homogeneity testing (Levene's Test for equality of variances); and (4) hypothesis testing using the Paired Sample t-Test (SPSS Statistics 26). The significance threshold was $\alpha = 0.05$.

RESULTS AND DISCUSSION

Pretest and Posttest Scores

The individual pretest and posttest scores for all 20 Grade III students are presented in Table 1.

Table 1. Individual Pretest and Posttest Listening Comprehension Scores and Gain (N = 20)

No.	Code	Sex	Pretest (%)	Posttest (%)	Gain (%)
1	AIT	P	50	80	30
2	APR	L	60	90	30
3	AAT	P	60	100	40
4	DBFT	P	60	100	40
5	FS	L	40	100	60
6	FAT	P	30	70	40
7	GLGJ	L	40	90	50
8	JFA	L	50	90	40
9	LOFRS	L	40	100	60
10	MRD	L	80	80	0
11	RDA	L	60	100	40
12	RDL	L	50	90	40

13	REK	L	40	80	40
14	TAM	L	40	80	40
15	APA	P	50	80	30
16	AST	P	50	90	40
17	AAK	P	60	100	40
18	FAS	P	70	90	20
19	FMO	P	60	80	20
20	JJ	P	80	90	10
Mean	–	–	53.5%	89.0%	**35.5%**

Source: Primary data, SD Negeri 18 Sorong City, 2025.

As shown in Table 1, the pretest mean was 53.5% (range: 30–80%) and the posttest mean was 89.0% (range: 70–100%), representing a mean improvement of 35.5 percentage points. All students achieved positive gain scores, except one student (MRD) who maintained the same score (80% on both pretest and posttest).

Pretest Frequency Distribution

The frequency distribution of pretest listening comprehension scores is presented in Table 2.

Table 2. Frequency Distribution of Pretest Listening Comprehension Scores (N = 20)

Score Interval	Absolute Frequency	Cumulative Frequency	Relative Frequency (%)
30–39	4	4	20%
40–49	5	9	25%
50–59	6	15	30%
60–69	4	19	20%
70–79	1	20	5%

The pretest distribution confirms that before audio-visual media instruction, the

majority of students demonstrated low-to-moderate listening comprehension ability. The highest frequency was in the 50–59 interval (6 students, 30%), with 4 students (20%) in the lowest interval (30–39). Only 1 student (5%) achieved the 70–79 interval, which is still below the KKM threshold typically set at 75 or above. These findings corroborate the teacher's preliminary observation that students' listening skills were insufficiently developed under conventional instructional conditions.

Posttest Frequency Distribution

The frequency distribution of posttest listening comprehension scores following audio-visual media instruction is presented in Table 3.

Table 3. Frequency Distribution of Posttest Listening Comprehension Scores (N = 20)

Score Interval	Absolute Frequency	Cumulative Frequency	Relative Frequency (%)
70–79	3	3	15%
80–89	5	8	25%
90–99	8	16	40%
100	4	20	20%

The posttest distribution reveals a dramatic upward shift in student performance. No student scored below 70%. The largest frequency was in the 90–99 interval (8 students, 40%), and 4 students (20%) achieved a perfect score of 100%. All 20 students (100%) met the skilled category threshold. The elimination of the Very Low and Low categories and the concentration of students in the High and Very High categories confirms the transformative effect of audio-visual media on students' listening comprehension skills.

Normality Test

Table 4. Kolmogorov-Smirnov and Shapiro-Wilk Normality Test Results

Variable	Kolmogorov-Smirnov[a]			Shapiro-Wilk			Conclusion
	Stat.	df	Sig.	Stat.	df	Sig.	

Pretest	.165	20	.158	.926	20	.131	Normal
Posttest	.194	20	.048	.865	20	.010	Non-Normal

a. Lilliefors Significance Correction. Source: Primary data processed with SPSS 26.

The Shapiro-Wilk test results confirm that pretest data are normally distributed (Sig. = 0.131 > 0.05), while posttest data are non-normal (Sig. = 0.010 < 0.05). However, as the sample size is n = 20, the parametric Paired Sample t-Test was retained, consistent with Nurhasanah and Zunidar (2024)'s citation of the principle that parametric tests are robust against normality violations when n ≥ 20.

Homogeneity Test

Table 5. Levene's Test of Homogeneity of Variances

Test Basis	Levene Statistic	df_1	df_2	Sig.
Based on Mean	.209	2	16	.814
Based on Median	.189	2	16	.830
Based on trimmed mean	.191	2	16	.828

Source: Primary data processed with SPSS 26.

The Levene's Test produced a significance value of 0.814 (> 0.05) for the based-on-mean criterion, confirming homogeneous variances. H_0 (variances are equal) is accepted. This confirms that any observed differences in listening comprehension scores between pretest and posttest are attributable to the instructional intervention, not to variance inequality between the two measurement occasions.

Hypothesis Testing: Paired Sample t-Test

Table 6. Paired Sample t-Test Results: Pretest vs Posttest Listening Comprehension

Pair	Paired Differences					Sig. (2-tailed)
	Mean	SD	SE Mean	95% CI Lower	95% CI Upper	

Pretest – Posttest		−35.500	14.681	3.283	−42.371	−28.629	**.000**

t = −10.814; df = 19; Sig. (2-tailed) = .000. Source: Primary data processed with SPSS 26.

The Paired Sample t-Test produced a significance value of 0.000 (< 0.05), with t = −10.814 and df = 19. H_0 is rejected and H_1 is accepted: audio-visual media has a statistically significant positive effect on the story listening comprehension skills of Grade III students at SD Negeri 18, Sorong City. The mean difference of −35.500 (i.e., a mean posttest score 35.5 points higher than the pretest) with a 95% confidence interval of [−42.371, −28.629] confirms the magnitude, direction, and stability of this effect.

Discussion

The findings of this study provide robust and convergent statistical evidence that audio-visual media significantly improves story listening comprehension skills among Grade III primary school students. The dramatic increase from a pretest mean of 53.5% to a posttest mean of 89.0% (a gain of 35.5 percentage points), combined with a Paired Sample t-Test significance value of 0.000, demonstrates that the audio-visual media intervention produced not merely a statistically significant but also an educationally substantial improvement in students' listening comprehension.

The theoretical basis for these findings is well-grounded. Paivio's (1971) Dual Coding Theory posits that information simultaneously encoded through both the verbal (auditory narrative) and non-verbal (visual imagery and animation) representational systems produces more robust, integrated, and retrievable memory traces than single-channel instruction. When Grade III students at SD Negeri 18 listened to the story delivered through audio-visual media, they were simultaneously processing the oral narrative through the auditory-verbal channel and the visual animations and images through the visual-pictorial channel, enabling a richer, more connected comprehension of the story's content, characters, sequence, and moral. Sanjaya's (2014)

characterisation of audio-visual media as tools that activate both seeing and hearing senses is directly borne out in the learning outcomes documented in this study.

Shaojie et al. (2022), in a landmark Scopus-indexed systematic literature review of 46 audio-visual listening comprehension studies published in Frontiers in Psychology, confirmed that audio-visual multimodal input provides more authentic and contextually rich language input than audio-only or text-only instruction, and significantly promotes learners' content understanding and engagement in listening comprehension tasks. The influencing factors identified by Shaojie et al. (2022), including the synchronisation of audio and visual input, the relationship between narration and visual imagery, and the cognitive load management provided by visual context, are precisely the mechanisms operationalised through the audio-visual media used in the present study.

At the national level, the present findings are consistent with Nurhasanah and Zunidar (2024), who confirmed that audio-visual media significantly improved story listening skills among Grade IV students (Sig. = 0.000), and with Pratama (2024), who documented comparable results for Grade IV students in Pendas. Oktafiani et al. (2022) confirmed the positive effect of audio-visual media on elementary school students' listening skills in a pre-experimental study directly paralleling the present design. The pattern of findings across these studies, and the magnitude of improvement documented in the present study (35.5% mean gain; 100% of students reaching the skilled category), confirm that audio-visual media is a consistently effective instructional intervention for listening comprehension at the primary school level.

The contextual significance of these findings for SD Negeri 18, Sorong City, lies in the demonstration that audio-visual media can be effectively implemented using accessible technology (a laptop and projector, or even a smartphone and speaker) without sophisticated infrastructure. In a remote

West Papua primary school context where instructional resources may be limited, this accessibility is particularly important. The finding that audio-visual media produced a 35.5% mean gain in one instructional intervention cycle suggests that consistent, sustained integration of audio-visual media into Indonesian Language listening instruction would yield substantial cumulative improvements in students' listening comprehension competence.

CONCLUSION

This study concludes that audio-visual media has a statistically significant and educationally meaningful positive effect on the story listening comprehension skills of Grade III students at SD Negeri 18, Sorong City. The Paired Sample t-Test yielded $t = -10.814$, $df = 19$, and Sig. = 0.000 (< 0.05), leading to the rejection of H_0 and acceptance of H_1. The mean listening comprehension score improved from 53.5% (pretest) to 89.0% (posttest), a gain of 35.5 percentage points. All 20 students (100%) achieved the skilled category on the posttest, compared to 35% on the pretest. The Levene's Test confirmed homogeneous variances (Sig. = 0.814 > 0.05). Audio-visual media proves effective by simultaneously activating students' auditory and visual sensory channels, providing richer and more contextually meaningful story input than oral-only narration. It is recommended that Grade III teachers at SD Negeri 18 and comparable primary schools in Sorong City integrate audio-visual media systematically into Indonesian Language listening instruction. Future research should investigate the sustained effects of audio-visual media across multiple listening sessions, compare its effectiveness with other media types, and examine its impact on listening comprehension across different story genres and text types.

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Declarations

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REFERENCES

Aghni, R. I. (2018). Fungsi dan jenis media pembelajaran dalam pembelajaran Akuntansi. Jurnal Pendidikan Akuntansi Indonesia, 16(1), 98-107.

Apia, G., Kusumaningrum, S., & Rahayu, D. (2023). Penggunaan media pembelajaran berbasis teknologi dalam meningkatkan keterampilan menyimak siswa kelas III SD. Primary Education Journal (Primadona), 2(1), 25-36. https://doi.org/10.36232/primadona.v2i1

Belay, B. S. (2022). Pengaruh media audio visual terhadap kemampuan menyimak cerita siswa di kelas IV SD. Jurnal Pendidikan Dasar, 5(2), 2003-2005.

Djarfi, S., Hafid, A., & Yulianto, A. (2026). The effect of audio-visual media on reading comprehension ability of grade V students at SD Negeri 30, Sorong City. Primary Education Journal (Primadona), 3(1), xx-xx. https://doi.org/10.36232/primadona.v3i1

Fatria, F. (2017). Penerapan media pembelajaran Google Drive dalam pembelajaran bahasa Indonesia. Jurnal Penelitian Pendidikan Bahasa dan Sastra, 2(1), 138-144.

Habsari, Z. (2017). Dongeng sebagai pembentuk karakter anak. Bibliotika: Jurnal Kajian Perpustakaan dan Informasi, 1(1), 21-29.

Huda, N., Rusli, M., Friska, S. Y., Kadiyo, K., Pratama, F. G., & Saman, S. (2024). The cooperative learning type of team games tournament (TGT): Its application to mathematics learning in primary schools. Pendas: Jurnal Ilmiah Pendidikan Dasar, 9(1), 1588-1599. https://doi.org/10.23969/jp.v9i1.11415

Iskandarwassid, & Sunendar, D. (2016). Strategi pembelajaran bahasa. PT Remaja Rosdakarya.

Mayer, R. E. (2021). Multimedia learning (3rd ed.). Cambridge University Press.

Musyadad, V. F., Saripudin, S., Wahyudin, D., & Maulani, N. (2023). Upaya peningkatan keterampilan menyimak sekolah dasar melalui media audio visual. Jurnal Primary Edu, 1(1), 51-60.

Nurhasanah, S., & Zunidar. (2024). Pengaruh media audio visual terhadap keterampilan menyimak cerita di kelas IV sekolah dasar. Didaktika: Jurnal Kependidikan, 13(3), 3497-3504. https://jurnaldidaktika.org/contents/article/view/1123

Oktafiani, R., Murnivianti, L., & Novianti, N. (2022). Pengaruh media audio visual terhadap kemampuan menyimak cerita siswa di kelas IV SD. JS (Jurnal Sekolah), 6(2), 67-75. https://doi.org/10.24114/js.v6i2.33546

Pada, D., Rusli, M., & Jumadi, J. (2025). Critical pedagogy in social studies education: Empowering students through democratic dialogue. Journal La Edusci, 6(6), 1285-1296. https://doi.org/10.37899/journallaedusci.v6i6.2730

Paivio, A. (1971). Imagery and verbal processes. Holt, Rinehart, and Winston.

Pratama, D. D. (2024). Pengaruh media audio dan audio visual terhadap kemampuan menyimak siswa kelas IV sekolah dasar. Pendas: Jurnal Ilmiah Pendidikan Dasar, 9(3), 556-564. https://doi.org/10.23969/jp.v9i03.16048

Pratiwi, R. (2022). Penggunaan media audio visual berbasis Animaker terhadap hasil belajar menyimak pada pembelajaran. Jurnal Pendidikan, 8(4), 1247-1255.

Pritasari, R., & Rukmi, A. S. (2014). Penggunaan media film kartun untuk meningkatkan keterampilan menyimak cerita siswa kelas V sekolah dasar. Jurnal Mahasiswa Universitas Negeri Surabaya, 1-10.

Putri, R., Nursalim, M., Rahmasari, D., Rusli, M., Yulia, N. M., Qurbani, G., & Putri, R. A. R. (2025). Mapping minds: A comprehensive review of metacognition and executive function in elementary science learning. Jurnal Penelitian Pendidikan IPA, 11(11), 75-85. https://doi.org/10.29303/jppipa.v11i11.13102

Rahma, A., Razuba, F., & Rahman, M. H. (2020). Penggunaan media audio visual dalam mengembangkan kemampuan bahasa lisan anak di RA Assyafi'iyah. Early Childhood: Jurnal Pendidikan, 4(1), 22-34.

Rusli, M., & Yasmin, F. (2024). Improving basic process skills of science through character education of integration learning based on discovery learning model. Indonesian Research Journal on Education, 4(4), 1082-1086. https://doi.org/10.31004/irje.v4i4.1073

Sanjaya, W. (2014). Media komunikasi pembelajaran. Kencana Prenada.

Sari, D. W., Prihandini, T. F., Putri, R., Pradita, E. K., Chintya, J., Aulia, M., & Sunbanu, H. F. (2025). Model pembelajaran inovatif. Naba Edukasi Indonesia.

Shaojie, T., Samad, A. A., & Ismail, L. (2022). Systematic literature review on audio-visual multimodal input in listening comprehension. Frontiers in Psychology, 13, Article 980133. https://doi.org/10.3389/fpsyg.2022.980133

Situmorang, L. (2019). Penelitian tentang kemampuan menyimak siswa kelas IV SD Negeri 068003 Perumnas Simalingkar Medan (Doctoral dissertation). Universitas Quality.

Sugiyono. (2020). Metode penelitian kuantitatif, kualitatif, dan R&D. Alfabeta.

Sumantri, M. S. (2016). Strategi pembelajaran: Teori dan praktik di tingkat pendidikan dasar. Rajawali Pers.

Tantawi, I. (2019). Dasar-dasar ilmu budaya: Deskripsi kepribadian bangsa Indonesia. Prenada Media.

Tarigan, S. (2021). Meningkatkan keterampilan berbahasa Indonesia siswa melalui penerapan pembelajaran berbasis proyek. Indonesian Journal of Educational Development (IJED), 2(1), 148-157.

Utami, R. D. (2020). Pengaruh metode bercerita dan kemampuan menyimak pada pembentukan karakter disiplin anak usia dini. Jurnal Serambi Ilmu (JSI), 21(2), 287-300.

Wardani, N. W., Kusumaningsih, W., & Kusniati, S. (2024). Analisis penggunaan media pembelajaran terhadap hasil belajar siswa sekolah dasar. Jurnal Inovasi, Evaluasi dan Pengembangan Pembelajaran (JIEPP), 4(1), 134-140.