



Animated Short Dialogue Video in English: An Experimental Study on Its Impact on Students' Listening Comprehension

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Abstract. *This study investigates impact of using short animated English-dialogue videos on Indonesian EFL students' listening comprehension compared to traditional audio-based instruction. Employing a true experimental pretest–posttest control-group design, the research involved 60 second-year English Language Education (ELE) students from Islamic University of Kalimantan Muhammad Arsyad Al-Banjari Banjarmasin, equally divided into experimental and control groups. The experimental group received instruction via animated video dialogues, while the control group used conventional audio dialogues. Listening comprehension was assessed using validated multiple-choice tests administered before and after a two-week instructional period. Descriptive and inferential statistics, including independent- and paired-samples t-tests, were used to analyze the data. Results showed a statistically significant improvement in the experimental group's performance ($t = 4.79$, $p < .05$), while the control group's gain was not significant ($t = 0.85$, $p > .05$). Moreover, the posttest comparison between groups indicated a significant advantage for the experimental group ($t = 2.05$, $p = .04$). These findings suggest that animated video-based instruction enhances listening comprehension more effectively than traditional methods, supporting dual-coding and multimedia learning theories.*

Keywords: *Animated Short Dialogue; Dual-Coding Theory; English language learning; Listening Comprehension; Multimedia learning*

Abstrak. Penelitian ini menyelidiki dampak penggunaan video dialog bahasa Inggris animasi pendek terhadap pemahaman mendengarkan siswa EFL Indonesia dibandingkan dengan instruksi berbasis audio tradisional. Dengan menggunakan desain kelompok kontrol pretes-postes eksperimental sejati, penelitian ini melibatkan 60 mahasiswa Pendidikan Bahasa Inggris (ELE) tahun kedua dari Universitas Islam Kalimantan Muhammad Arsyad Al-Banjari Banjarmasin, dibagi sama rata menjadi kelompok eksperimen dan kontrol. Kelompok eksperimen menerima instruksi melalui dialog video animasi, sementara kelompok kontrol menggunakan dialog audio konvensional. Pemahaman mendengarkan dinilai menggunakan tes pilihan ganda yang divalidasi yang diberikan sebelum dan sesudah periode instruksional dua minggu. Statistik deskriptif dan inferensial, termasuk uji-t sampel independen dan berpasangan, digunakan untuk menganalisis data. Hasil menunjukkan peningkatan yang signifikan secara statistik dalam kinerja kelompok eksperimen ($t = 4,79$, $p < .05$), sementara perolehan kelompok kontrol tidak signifikan ($t = 0,85$, $p > .05$). Selain itu, perbandingan pasca-tes antar kelompok menunjukkan keunggulan yang signifikan bagi kelompok eksperimen ($t = 2,05$, $p = 0,04$). Temuan ini menunjukkan bahwa pembelajaran berbasis video animasi meningkatkan pemahaman mendengarkan secara lebih efektif daripada metode tradisional, yang mendukung teori pembelajaran dual-coding dan multimedia.

Kata Kunci: Dialog Pendek Animasi; Pemahaman Mendengarkan; Pembelajaran Bahasa Inggris; Pembelajaran Multimedia; Teori Pengodean Ganda

1. RESEARCH BACKGROUND

Listening comprehension is widely regarded as a fundamental proficiency in acquiring a second language, as it requires learners to interpret spoken language, understand its meaning, and incorporate this information into their existing language knowledge (Rost, 2002; Vandergrift & Goh, 2012). However, many English as a Foreign Language (EFL) learners continue to face challenges with listening tasks, due to issues such as limited vocabulary, unfamiliar pronunciation, and insufficient exposure to interactive or multimodal

input (Gilakjani & Ahmadi, 2011; Vandergrift, 2015). Consequently, the use of innovative instructional tools that integrate audiovisual and interactive elements presents a promising approach for improving listening comprehension skills.

Recently, animated video materials, particularly short dialogue-based clips in English, have emerged as an engaging resource for language learning. Studies conducted within Indonesian EFL contexts suggest that students who engaged with animation-based media showed significantly better improvements in their listening comprehension compared to those who were taught through traditional audio-only methods or non-visual formats (Atmadja, Ningrum & Wahyuni, 2024; Simanungkalit, Sinurat & Siahaan, 2023). For instance, a quasi-experimental study demonstrated that the group using animated videos achieved notably higher post-test listening scores ($t = 2.7$, $p < 0.05$) than the control group, which used conventional audio materials (Simanungkalit et al., 2023). Similarly, research involving ninth-grade EFL learners found that animated video instruction brought about a meaningful increase in listening comprehension when compared to storytelling approaches (Atmadja et al., 2024). These results indicate that animated videos could be an effective tool for enhancing listening comprehension in EFL contexts.

From a theoretical standpoint, the efficacy of animated video in listening instruction can be understood through the Cognitive Theory of Multimedia Learning-based framework (CTML), which suggests that learners process information through two distinct channels—visual and auditory—which have limited capacity. Active involvement in selecting, arranging, and synthesizing information via these channels leads to meaningful learning. (Mayer, 2009). According to this theory, combining visual animation with spoken dialogue can enhance learners' ability to construct coherent mental representations of spoken English (Mayer, 2009; Mayer, 2014). Additionally, the dual-coding theory supports this approach by proposing incorporating both oral (dialogue) and nonverbal communication (animation) stimuli enriches encoding and retrieval processes (Paivio, 1971). Therefore, short animated videos with dialogue may provide a stronger foundation for listening comprehension by stimulating multiple cognitive channels and offering contextual cues.

Moreover, animated dialogue videos can address some of the cognitive and metacognitive challenges that learners face during listening comprehension. Research indicates that students' listening skills improve not only through increased exposure to language input but also by engaging cognitive strategies (such as prediction and inferencing) and meta-cognitive skills (such as planning, monitoring, and evaluating) (Munawar et al., 2024; Vandergrift & Goh, 2012). By designing animated dialogue videos that encourage

learners to anticipate content, monitor their understanding, or reflect on the meaning of what is being communicated, instructors can stimulate deeper cognitive processing, thereby improving listening comprehension outcomes.

Despite the growing interest in animated video as an instructional aid, there are multiple gaps identified in the current studies. First, most studies focus on broad "animation video" interventions, rather than specifically investigating short animated dialogues in English—focused, concise animations featuring conversational exchanges. Second, many studies examine general improvements in listening comprehension without isolating the specific impact of dialogue-driven animation on the listening skills of EFL learners. Third, research on the use of animated dialogue videos within Indonesian EFL contexts remains scarce, offering an opportunity to assess how these media function within local educational settings and among learners with varying levels of proficiency.

Thus, the objective of this study is to analyze the influence of short animated dialogue videos in English on Indonesian EFL students' listening comprehension. Specifically, it compares the listening comprehension gains of students who are exposed to this multimedia resource with those who receive traditional audio-based instruction. In doing so, this research contributes to theoretical understanding (through CTML and dual-coding theory), practical applications (by providing empirical evidence), and localized pedagogical practices (by focusing on Indonesian EFL learners). Therefore, this study is designed to investigate the following research question: To what extent does an animated short English-dialogue video affect students' listening skills compared with standard audio-based teaching?

2. LITERATURE REVIEW

Listening Comprehension in EFL Contexts

Listening comprehension is widely recognized as a crucial yet challenging skill in English as a second/foreign language education. Learners must analyze and make sense of spoken language, assign meaning to it, and integrate it into their evolving linguistic system (Rost, 2002; Vandergrift & Goh, 2012). In Indonesian EFL contexts, students often face persistent challenges such as rapid speech rates, unfamiliar vocabulary, irregular pronunciation, accents, and limited exposure to authentic language use outside of the classroom (Nainggolan & Hanifah, 2024, p. 209; Nanning, 2023, p. 12). For instance, one study identified that unfamiliar words and fast speech rates were significant barriers for students, hindering their ability to effectively follow spoken discourse (Nanning, 2023, p. 13).

In addition, learners' listening comprehension is influenced by various cognitive and affective factors, including their background knowledge, working memory capacity, use of meta-cognitive strategies, and their attitude toward listening tasks (Yaseen & Alahmed, 2024, p. 5; Nurhandayani et al., 2020, p. 3). For example, factors such as vocabulary knowledge, attention, speech rate, accent, and even environmental conditions like noise have been shown to significantly affect listening comprehension outcomes (Izzah & Keeya, 2023, p. 95). Moreover, recent research emphasizes the importance of listening comprehension as a gateway to other language skills, particularly its strong relationship with speaking proficiency (Suharja, 2023, p. 45). Given the challenges students face and their implications for overall language development, it is essential to design effective instructional interventions to address listening comprehension in EFL contexts.

Animated Short Dialogue Videos in English

With the increasing availability of multimodal teaching materials, animated videos have become a promising tool for enhancing listening comprehension in EFL instruction. These short animated dialogue videos combine spoken language with visual elements, context, and often a narrative or conversational structure. The benefits of such videos include providing rich contextual clues, slowing down or chunking speech, engaging both auditory and visual learning channels, and fostering greater student motivation and focus.

Empirical studies have shown that animated videos can significantly improve listening comprehension. For example, a quasi-experimental study revealed that EFL learners who used animated videos performed considerably better in listening comprehension tests than those taught using traditional audio-only methods (Khumairah et al., 2024, p. 8). Similarly, Atmadja, Ningrum, and Wahyuni (2024, p. 12) found that animated videos helped Indonesian EFL learners improve their listening scores, with variations depending on individual learning styles. Moreover, animated video has proven to be effective at the elementary level: a development study showed that two-dimensional animated videos were useful and effective for improving listening skills in young learners (Fadloil & Sismulyasih, 2024, p. 7).

Theoretically, the use of animated videos in listening instruction can be understood/guided by the principles of the Cognitive Theory of Multimedia Learning (CTML), which argues that meaningful learning occurs when learners engage in selecting, organizing, and integrating information across dual sensory channels—aural and visual (Mayer, 2009). Additionally, the Dual-Coding Theory suggests that verbal and non-verbal information are

encoded separately, leading to richer encoding and better retrieval (Paivio, 1971). Therefore, animated short dialogue videos can enhance listening comprehension by providing visual support to help decode spoken input, thus reducing cognitive load and aiding in the creation of mental representations.

Previous Studies

Recent research has provided valuable insights into the effectiveness of audiovisual and animated media in listening instruction. For example, Lubis, Daulay, and Husda (2021, p. 4) found that audiovisual media significantly improved students' listening comprehension in the setting of senior high schools in Indonesia, with post-test scores improving from a mean of 60 to 80. Similarly, Khumairah, Korompot, and Sultan (2024, p. 9) reported a significant difference ($p = 0.006$) favoring the animated-video group over a control group. In another study, Atmadja et al. (2024, p. 13) examined how animated videos influence learning based on individual learning styles, discovering significant outcomes ($f_{\text{observed}} = 26.690$, $p < .001$) with differences across various learning styles.

Beyond improving listening comprehension, research on short-video resources in autonomous learning settings highlights positive learner engagement and perceptions. For instance, Kamar and Marlina (2024, p. 5) found that EFL students appreciated short stories accompanied by videos, reporting improvements in comprehension and increased motivation. While this study did not focus exclusively on animated dialogue, it suggests that audiovisual resources can support listening development.

However, the literature also reveals several limitations. Many studies on animation focus on general "animation video" interventions, without isolating the specific effects of short animated dialogues. Furthermore, some studies concentrate on younger learners or vocabulary instruction, rather than on listening comprehension in upper secondary or higher-level EFL settings. There is also a need for further research into how learners' individual characteristics—such as learning style and proficiency—interact with the use of animated dialogue videos, particularly within the Indonesian EFL context.

3. METHOD

Research Design

The study followed a true experimental design, incorporating pretest and posttest assessments for the control group structure. Two intact groups of students were assessed both before and after the intervention. One group received the experimental treatment (animated

short dialogue videos in English), while the other group served as the control, receiving traditional audio-based instruction (Hastjarjo, 2019, p. 4). The pretest-posttest format enables the researcher to isolate changes in listening comprehension that can be attributed to the intervention, rather than to initial differences between groups (Gray, 2023, p. 2). According to established research methodology, the pretest-posttest control-group design is commonly used to evaluate educational interventions and strengthens internal validity by capturing baseline performance and accounting for factors such as maturation or testing effects (Rahmatika & Zainul, 2023, p. 7).

Population and Sample

The study's population consisted of all second-year English Language Education students at Islamic University of Kalimantan Muhammad Arsyad Al-Banjari Banjarmasin. A sample of 60 students was selected, divided equally into two groups: with 30 students assigned to the experimental group and 30 to the control group. The grouping of participants was determined by matched pretest listening comprehension scores to ensure equivalency between the groups at the outset. This sample size was chosen for its manageability within the academic semester and its sufficiency for conducting independent-sample t-tests (Lubis, Daulay & Husda, 2021, p. 4).

Technique of Data Collection

The primary data collection tool was a listening comprehension test, which was administered twice: once as a pretest before the intervention and again as a posttest at the end of the instructional period. Both tests consisted of 30 multiple-choice items, adapted from validated EFL listening comprehension assessments. The pretest was given under standard classroom conditions to both groups prior to any instructional treatment. After two weeks of instruction, a posttest using an equivalent form (same structure, different items) was administered to both groups. This design ensures that any changes in scores reflect the effect of the intervention rather than practice or familiarity with the test.

Intervention / Treatment

The experimental group received instruction using a specifically designed animated short dialogue video in English. This video focused on conversational interactions, contextual cues, and targeted listening exercises. After viewing the video, students participated in guided listening activities and comprehension checks facilitated by the instructor. In contrast, the

control group underwent standard audio instruction that covered the same content and duration as the animated video, but without any visual animation. Both groups participated in the same comprehension checks, and instructional time and content were identical, with the only difference being the modality of the instructional media.

Data Analysis

Analysis of the data was carried out in two stages, starting with descriptive measures such as means and standard deviations for pretest and posttest scores were calculated for each group to examine baseline comparability and performance gains. Second, inferential statistics were applied: an The posttest mean scores of the experimental and control groups were compared using an independent-samples t-test. (assuming equal variances) to determine if the experimental group showed significantly better performance. Additionally, A paired-samples t-test was employed for the analysis within each group to assess the significance of the improvement from pretest to posttest. While an independent-sample t-test is appropriate for comparing the two independent groups, educational research also recommends considering ANCOVA to control for pretest scores as covariates in order to reduce bias (Statistical Procedures Review, 2018, p. 5). Before conducting these analyses, the data were examined for normality, homogeneity of variances, and baseline equivalence between groups to ensure that the assumptions for the tests were met. A significance level of $\alpha = .05$ was applied for all inferential tests.

Ethical Considerations

The study's objectives and procedures were thoroughly explained to the participants, and their consent was secured prior to participation. All individual test scores were kept confidential, and students were assured that their participation and group assignment would not influence their course grades. As a measure of fairness, the control group was provided with the opportunity to view the animated short dialogue video after data collection was completed.

4. RESULTS AND DISCUSSION

Results

Data Analysis

To assess the effectiveness regarding the impact of the intervention on students' listening skills, The data underwent statistical analysis via SPSS software. Specifically, a t-

test was conducted to assess differences in the groups' average test results. To evaluate differences between the experimental and control groups in mean scores, an independent-samples t-test was applied, such as comparing their post-test results. On the other hand, a Paired Samples t-test was used to analyze the differences within each group, for example, by comparing the pre-test and post-test scores of the experimental group. Furthermore, the effect size of the intervention was calculated using Cohen's d formula, and the findings were interpreted according to Cohen's established guidelines for effect size.

Table 1. Students Test Scores Test (Maximum Score)

Listening Comprehension (100)					
Group	Pretest		Post-test		Gain
	M	SD	M	SD	
Experimental	53.33	10.37	59.83	8.86	6.50
Control	53.83	10.40	54.40	11.09	0.57
Difference	0.5		5.43		5.93

Table 1 presents the initial pretest scores in listening comprehension for both groups, which were closely matched (Experimental: M = 53.33, Control: M = 53.83). Upon completion of the intervention, the experimental group showed a significant increase in their post-test mean score, rising to 59.83, while The post-test mean score of the control group showed a minor increase, reaching 54.40. The mean score of the experimental group rose by 6.50 points, in contrast to a small gain of 0.57 point was observed in the control group, reflecting a marked improvement. The post-test mean scores of the two groups differed by 5.43 points, indicating a positive impact of the intervention on listening comprehension. Additionally, the gain score difference of 5.93 further reinforces the effectiveness of the treatment.

Table 2. Analysis of Listening Comprehension Scores

Listening Comprehension test							
Group	Pretest		Post-test		df	t	p
	M	SD	M	SD			
Experimental	53.33	10.36	59.83	8.85	29	4.79	0.00
Control	53.83	10.39	54.40	11.09	29	0.85	0.56
df	58		58				
t	0.18		2.05				
p	0.85		0.04				
p > 0.05 and t < t-table = No significant difference							
p < 0.05 and t > t-table = Significant difference							
t-table at significance 5%, df(29) = 2.04, df(58) = 2.00							

Table 2 presents the Independent Samples t-Test analysis of listening comprehension scores. For the experimental group, the difference between pretest (M = 53.33) and post-test (M = 59.83) was statistically significant (t = 4.79, p = 0.00 < 0.05), indicating the treatment had a meaningful effect. In contrast, the control group showed no significant difference

between pretest and post-test scores ($t = 0.85$, $p = 0.56 > 0.05$). Comparing post-test scores between groups, the result was also significant ($t = 2.05 > t$ -table value of 2.00, $p = 0.04 < 0.05$), providing evidence that the experimental group exceeded the control group in performance. These findings support the effectiveness of the intervention or the applied strategy in improving students' listening comprehension.

Discussion

The findings align with theoretical frameworks asserting that targeted instructional interventions promote listening comprehension by activating learners' meta-cognitive and affective processes. The treatment's notable gain (6.50 points) in the experimental group mirrors recent research showing that teaching meta-cognitive strategies (e.g., planning, monitoring, evaluating) enhances listening outcomes in EFL contexts (Nasution & Prihatini, 2023). Also, affective–motivational interventions have been shown to significantly boost listening comprehension performance when compared to traditional methods, supporting our observed group difference (5.43 mean difference) between experimental and control conditions (Abdolrezapour & Ghanbari (2021). Together, these results corroborate previous studies indicating that interventions which engage cognitive strategy training and emotional regulation can meaningfully improve listening comprehension abilities among language learners.

The outcomes reflected a meaningful advancement in the experimental group ($t = 4.79$, $p < 0.001$) and lack of change for the control group ($t = 0.85$, $p > 0.05$), alongside a significant between-group post-test difference ($t = 2.05$, $p = 0.04$), align closely with recent findings on strategy-based listening instruction. For example, research confirms that explicit meta-cognitive listening strategy training meaningfully boosts comprehension outcomes in EFL contexts (Dousti & Abolfathiasl, 2023). Another study showed that meta-cognitive strategy interventions significantly improved listening scores and strategy use among intermediate learners (Taherkhani et al., 2022). The consistency between our findings and these studies supports the theoretical view that developing learners' planning, monitoring, and evaluation skills enhances access to meaning during listening tasks, leading to measurable gains in comprehension performance.

5. CONCLUSION

This study aimed to examine the effect of using a short animated English-dialogue video on Indonesian EFL students' listening comprehension, compared to traditional audio-based instruction. The findings confirmed that students exposed to the animated video significantly outperformed those who received conventional audio instruction, indicating that animated video instruction contributes to better listening comprehension.

From a theoretical perspective, this study aligns with the Cognitive Theory of Multimedia Learning (CTML) and dual-coding theory, demonstrating that combining visual and auditory inputs facilitates better language processing and retention. The results reinforce the importance of multimodal input in second language acquisition, especially in listening skills development. Practically, this research suggests that EFL instructors should consider integrating animated video content into listening instruction to enhance learner engagement and comprehension. This approach is particularly relevant in digital learning contexts and aligns with the preferences of today's visually oriented learners. However, the study is limited in scope due to its focus on a single educational setting and short-term intervention. The sample size and duration may restrict the applicability of the results to other contexts. Further investigation is recommended to determine the prolonged impact of multimedia-based listening instruction across diverse learner populations and contexts. Further studies could also investigate how different types of video content (e.g., narrative vs. expository) influence various aspects of listening comprehension. By bridging theory and classroom practice, this study provides valuable insights for improving EFL listening instruction through multimedia integration in Indonesian and similar educational settings.

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