

Presenting TED Talk-Based Educational Intervention in Learning Listening Proficiency for Indonesian High School Students

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ABSTRACT

This study investigates the impact of TED Talk-based educational interventions on improving listening proficiency and communication skills among Indonesian high school students. A quantitative research design was used, involving 24 purposively selected participants. Data were collected through pre-test and post-test listening assessments and analyzed using paired sample t-tests. Results reveal a significant increase in listening proficiency following the intervention, with students demonstrating higher scores and advanced classification levels in the post-test compared to the pre-test. The findings underscore the effectiveness of TED Talk videos as authentic, engaging learning tools that enhance both comprehension and communicative competence. Pedagogical implications suggest that integrating multimedia resources, such as TED Talks, into language instruction can address the limitations of traditional teaching methods by providing diverse, motivating, and context-rich auditory input. Despite these positive outcomes, the study's small sample size and short intervention period limit the generalizability and long-term applicability of the results. Future research is recommended to explore sustained impacts and broader implementation. Overall, this study contributes to instructional innovation in English listening and communication education in Indonesian high schools.

KEYWORDS

Listening proficiency, TED Talk, High school, EFL, Educational intervention

INTRODUCTION

Listening proficiency is a fundamental pillar for acquiring a new language, particularly in learning English as a foreign language. For Indonesian high school students, developing strong listening skills is more than an academic requirement; it is a gateway to broader communication competence, academic achievement, and future global opportunities. The ability to accurately understand spoken English enables students to engage meaningfully in conversations, follow instructions, and assimilate knowledge delivered through auditory

channels. Given the increasing globalization and the consequent demand for English proficiency, educational research must prioritize effective strategies to enhance learners' listening abilities in Indonesia.

Despite the acknowledged importance of listening skills, numerous challenges persist in achieving this goal within Indonesian secondary education. A primary concern is the prevalent reliance on traditional pedagogical approaches that emphasize rote learning and scripted dialogues. These methods often utilize outdated and unrealistic materials that do not mirror authentic language use. Consequently, students are deprived of exposure to the diverse accents, intonations, and colloquial expressions that characterize natural English communication, limiting their adaptive listening skills.

Another challenge lies in sustaining student engagement during listening activities. Many learners report difficulties in maintaining concentration when confronted with monotonous or uninspired audio content (Jiang & Cheong, 2024; Uslu Kocabaş & Bavlı, 2025). The lack of interactivity and contextual relevance in conventional listening exercises may cause diminished motivation and lead to superficial processing of auditory information (Auerbach & Gritton, 2022). Such disengagement hampers the internalization of effective listening strategies and reduces overall proficiency gains.

Furthermore, resource constraints in Indonesian schools constrain the incorporation of multimedia and technological tools that could enrich listening experiences. Insufficient access to high-quality audio-visual equipment, internet connectivity, and updated learning platforms restricts teachers' ability to diversify listening materials and employ innovative instructional interventions. This limitation confines listening pedagogy to less dynamic and less stimulating formats, which may not meet the evolving needs of modern learners.

Additionally, the scarcity of contextually appropriate and culturally resonant listening materials presents another barrier. When content does not align with students' interests, cultural background, or real-life experiences, comprehension becomes challenging and learning motivation declines (Alam & Mohanty, 2023; Namaziandost et al., 2025). Tailoring listening resources to reflect students' socio-cultural environment is vital to foster deeper engagement and more meaningful learning outcomes, yet this aspect remains underdeveloped in many Indonesian curricula.

Addressing these multifaceted challenges, this study focuses on the potential of TED Talk-based educational interventions to enhance listening proficiency among Indonesian high school students. TED Talks offer authentic, contemporary, and diverse content from

speakers around the world, providing students with rich linguistic input and cultural insights. However, current empirical research examining the efficacy of TED Talk integration in secondary language classrooms within Indonesia is limited. This gap calls for rigorous investigation into how such interventions affect listening skill development and how both students and educators perceive them. Accordingly, the research question framing this study is “In what ways do TED Talk-based activities influence the listening proficiency of Indonesian high school students?” Through this inquiry, the study aims to provide valuable evidence to advance English listening pedagogy in Indonesian secondary education.

METHOD

Design of the study

This study adopts a quantitative research design to rigorously investigate the effectiveness of TED Talk-based educational interventions in enhancing listening proficiency among Indonesian high school students. The quantitative approach is selected for its ability to produce measurable, objective data that can elucidate the extent of skill improvements resulting from the intervention. Employing a pretest-posttest model allows for the direct comparison of participants’ listening abilities before and after the instructional period, thereby isolating the effect attributable to the use of TED Talks as a teaching tool. This structured framework supports the generation of statistically robust conclusions and facilitates replication in similar educational settings.

Participants

The research participants comprise a purposive sample of 24 students drawn from a public high school in Indonesia. Purposive sampling is used to select individuals who meet predetermined criteria relevant to the study’s focus, such as current enrollment in an English language course and a basic proficiency level suitable for the intervention. This method ensures sample homogeneity, which is important for controlling extraneous variables and enhancing the study’s internal validity. The relatively small, focused group size allows close monitoring of the instructional process and detailed data collection, thereby optimizing the quality of insights into the intervention’s impact.

Procedures of the Study

Data collection is conducted using a combination of standardized listening proficiency tests, questionnaires, and structured observations. Initially, a validated listening test is

administered to establish baseline proficiency levels among participants, measuring key competencies such as comprehension accuracy, vocabulary recognition, and response times. Following the implementation of the TED Talk-based intervention, the same test is re-administered to assess any improvements. The questionnaires and structured observations are designed to strengthen the quantitative data. These multiple data sources ensure triangulation, enhancing the reliability and richness of the dataset.

Analysis of the Study

In data analysis, quantitative statistical techniques are used to evaluate outcomes objectively. Paired sample t-tests are applied to compare pretest and posttest scores, determining whether observed changes in listening proficiency are statistically significant and not due to chance. Descriptive statistics summarize questionnaire responses, providing insights into participant attitudes and engagement levels. Additionally, observation data are quantified to identify patterns in student behavior during sessions. Together, these analytical methods offer a comprehensive view of both the measurable learning gains and the experiential aspects of the intervention, supporting a well-rounded interpretation of its effectiveness.

RESULTS

Percentaging Progress

The research results provide a compelling narrative of the significant progress made by Indonesian high school students following the implementation of TED Talk-based educational interventions to improve listening proficiency. At the outset, the pre-test scores indicated varied but generally modest listening capabilities, with only a single student categorized as good (4.1%), a majority of 13 students in the fair classification (54.1%), and 8 students in the poor category (33.3%). These results collectively underscore the initial challenges the students faced in comprehending spoken English, indicating that a considerable portion of the cohort was struggling to meet average proficiency standards prior to the intervention.

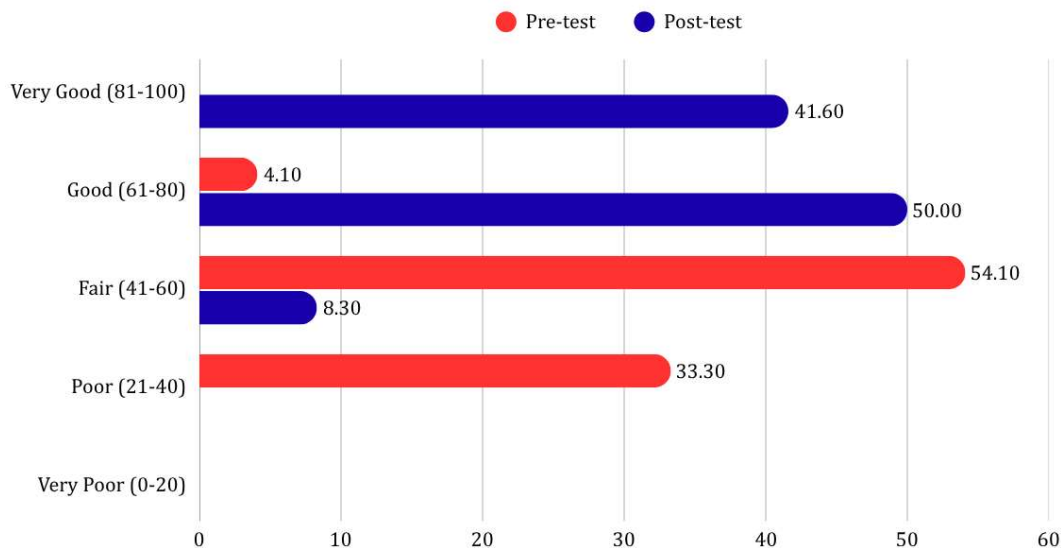


Figure 1. Pre-test and post-test percentaging progress

Following the instructional period employing TED Talk materials, students' performance markedly improved as reflected in the post-test scores. Ten students attained a perfect classification (41.6%), twelve achieved a good classification (50%), and two remained in the fair category (8.3%), with none classified as poor. This shift not only reflects quantitative improvements in test scores but also suggests qualitative enhancements in students' listening abilities, demonstrating that the intervention effectively elevated learners from lower to higher proficiency levels.

This progression from pre-test to post-test is significant not only in terms of raw score improvements but also in how it shifts the distribution of proficiency classifications. The intervention enabled the majority of students to surpass previous comprehension barriers, achieving classifications traditionally indicative of greater listening competence. The results suggest that the TED Talk videos (characterized by authentic, engaging, and diverse linguistic input) provided a meaningful context that enhanced the students' familiarity with various accents, speech rates, and colloquial expressions, all of which are crucial for real-world listening success.

Additionally, the improvement aligns with educational theories advocating the use of authentic materials in language acquisition. TED Talks, with their rich content and stimulating delivery, arguably increased learner motivation and engagement, key components of successful language learning. By exposing students to real-life language use, TED Talks may have helped develop not only receptive skills but also critical listening

strategies such as predicting, inferencing, and summarizing.

Overall, the research evidences the practical benefits of incorporating TED Talk-based interventions in the English listening curriculum. The progressive shift in proficiency levels highlights an effective pedagogical alternative to traditional listening instruction that often lacks authenticity and engagement. Nevertheless, while immediate improvements are evident, further research could examine the sustained impact of these interventions over time, their influence on other language skills, and the adaptability of TED Talk content for different learner profiles and proficiency levels.

Calculating Mean Score

The detailed quantitative analysis of students' listening proficiency pre- and post-test scores provides substantial evidence of the success of the TED Talk-based educational intervention. The initial mean score of 42.71 from the pre-test reflects a generally low baseline ability among the students in understanding spoken English. This performance level illustrates the need for instruction strategies that actively engage learners to develop their auditory comprehension skills more effectively. Following the intervention, the post-test mean score dramatically increased to 79.83, indicating a substantial enhancement in listening proficiency. This 37.12-point average gain represents a notable leap in student capability and comprehension, clearly demonstrating the positive influence of TED Talk-based activities.

Table 1. Mean score calculation: pre-test, post-test, gain

Component	Pre-Test	Post-Test	Gain (D)
Mean Score	42.71	79.83	37.12

To reinforce the significance of this improvement, the use of inferential statistics provides a rigorous method of validating the results. Conducting a paired-samples t-test, which is appropriate for comparing mean scores within the same group before and after an intervention, allowed the researchers to test the hypothesis that the TED Talk-based approach would yield measurable improvements in listening. The t-test results yielded a calculated t-value of 15.865, which was far above the critical t-value threshold of 1.714 at the 0.05 significance level with 23 degrees of freedom. This overwhelming difference confirms that the observed increases in the post-test scores were not due to random chance and that the intervention had a statistically significant effect on listening skill development.

This significant finding has important pedagogical and practical implications. The

substantial improvement in scores suggests that TED Talks, through their authentic language use, varied accents, and engaging content, provide learners with enriched linguistic input that traditional materials may lack. By exposing students to real-world spoken English in various contexts, TED Talk videos seem to enhance learners' abilities to interpret and comprehend spoken language more effectively. This authenticity also likely contributes to increased student motivation and engagement, factors which behavioral research identifies as critical to successful language acquisition.

Additionally, the substantial increase in scores and the significant t-test result underscore the potential of TED Talk-based instruction as a powerful addition to existing listening curricula. Given the challenges many Indonesian classrooms face with limited resources and less dynamic materials, integrating TED Talks represents a cost-effective and accessible method to provide authentic, stimulating, and culturally relevant listening practice. This approach can also accommodate a range of learner preferences and levels by allowing teachers to select appropriate talks.

The robust statistical evidence reinforces the findings that TED Talk-based educational interventions effectively improve listening proficiency among Indonesian high school students. The clear numeric gains coupled with statistical validation provide a compelling case for broader adoption of similar multimedia-based instructional strategies in language education. Future research should examine the long-term impacts, such as retention of listening skills and applicability across diverse educational contexts and language competency levels, to further optimize teaching practices.

DISCUSSION

The positive findings from this study highlight the substantial role that authentic and engaging multimedia resources, such as TED Talks, can play in enhancing language learning outcomes, particularly in developing listening proficiency. By incorporating TED Talks into instructional practices, learners are exposed to naturally occurring language in diverse accents and expressive styles, providing a richer, more realistic listening experience than traditional scripted materials. This authentic language input is critical for helping students navigate the complexities of real-world communication, which often involves understanding varied speech patterns and informal expressions.

Furthermore, integrating TED Talks appears to address several common issues in conventional listening instruction. Traditional methods often rely on monotonous or overly

controlled audio resources that may fail to capture students' interest or reflect practical language use. The diverse and stimulating content of TED Talks, along with their presentation by speakers from various backgrounds, creates an engaging learning environment that can motivate students. Motivation, as well-documented in second language acquisition research, is a key factor influencing the depth and sustainability of language learning (Kim et al., 2024; H. Liu et al., 2022; Sato & Loewen, 2022; Zhang et al., 2022). Engaged and motivated learners are more likely to adopt effective listening strategies, process material more deeply, and ultimately exhibit improved comprehension skills (Ahmadi Safa & Motaghi, 2024; Milliner & Dimoski, 2024; Xu et al., 2021; Zhou et al., 2025).

In resource-constrained educational contexts, such as many Indonesian schools, the practical advantages of TED Talk-based interventions are particularly compelling. Access to high-quality listening materials is often limited, and multimedia resources can be costly or technologically demanding (Alzubi, 2023; Awoyemi et al., 2024; Hwang et al., 2025). TED Talks, freely available online and accompanied by subtitles and transcripts, present an economically viable option for teachers aiming to provide learners with exposure to authentic English listening practice (Tilwani et al., 2022). This ease of access, combined with the adaptability of TED Talk topics to different learner levels and interests, allows instructors to tailor their lessons to meet diverse needs while enriching the curriculum (C.-Y. Liu, 2023b, 2023a; Tilwani et al., 2022).

Nevertheless, some limitations must be acknowledged. The current study's scope, focusing on a relatively small sample, suggests caution in generalizing its results to other student populations or educational settings. Future research involving larger and more varied sample groups would strengthen the validity of the findings. Additionally, longitudinal studies are necessary to explore whether gains in listening proficiency achieved through TED Talk-based instruction are maintained over time and how these gains impact overall language competency.

This study's discussion underlines that TED Talk-based educational interventions offer a viable and effective means of improving listening proficiency among Indonesian high school students. By confronting the limitations of traditional listening instruction and leveraging authentic, motivating content, such interventions enhance not only comprehension skills but also learner engagement and enthusiasm (Li & Li, 2022; Milliner & Dimoski, 2024; Peralta, 2025). These attributes make TED Talk-based methods a valuable

addition to language teaching practice, particularly in contexts seeking practical, impactful, and accessible instructional innovations.

CONCLUSION

This study concludes that TED Talk-based educational interventions significantly enhance listening proficiency among Indonesian high school students. The authentic and engaging nature of TED Talks provides learners with exposure to realistic language input, diverse accents, and culturally relevant content, which are critical components in developing practical listening skills. The intervention demonstrates that integrating multimedia resources into the English curriculum can yield measurable improvements in student comprehension, motivation, and engagement, thus contributing positively to overall language acquisition.

From a pedagogical perspective, this study suggests that language educators should consider incorporating TED Talks as a valuable listening resource to diversify instructional methods. This approach offers an accessible, cost-effective means to enrich listening practice, especially in resource-limited classrooms. Educators are encouraged to select TED Talk topics that align with students' interests and proficiency levels to maximize engagement and learning outcomes. Furthermore, training teachers to effectively utilize multimedia tools, including guidance on pre-listening activities and targeted comprehension tasks, could enhance the effectiveness of such interventions.

Despite the promising results, this study has several limitations that warrant consideration. The sample size was relatively small and drawn from a single educational setting, which may limit the generalizability of the findings to broader populations. Additionally, the research focused primarily on short-term gains in listening skills, and the long-term retention and transferability of these skills were not examined. While this study highlights the significant potential of TED Talk-based interventions to improve listening proficiency and enrich language learning experiences, ongoing research is necessary to explore sustained impacts and adaptability in various educational contexts. Nonetheless, the pedagogical implications underscore the importance of integrating authentic multimedia content into language instruction as an effective strategy for addressing persistent challenges in listening comprehension education.

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